

**EPA Registration # 68387-10**

# PROCESSING REQUEST

Reg # 68387-16

Decision # \_\_\_\_\_

Description: \_\_\_\_\_  
\_\_\_\_\_

**Material Available Electronically** (see PPLS): \_\_\_\_\_

☐ Electronic Label/Letter Dated \_\_\_\_\_

☐ Other: \_\_\_\_\_

**Material Sent** (see jacket): \_\_\_\_\_

☐ Stamped Label/Letter Dated \_\_\_\_\_

☒ Notification Dated \_\_\_\_\_

☒ New CSF(s) Dated \_\_\_\_\_

2/9/15

☐ Other: \_\_\_\_\_

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: \_\_\_\_\_

D. Copeland

Division: \_\_\_\_\_

Phone: \_\_\_\_\_

Date: \_\_\_\_\_

5/18/15



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

May 7, 2015

J. Michael Kelley, PhD  
toXcel LLC, Authorized Representative for  
Cytec Industries Inc.  
Five Garret Mountain Plaza  
Woodland Park, NJ 07424

Subject: CSF Amendment – Update CSF and submission of one year storage stability  
Product Name: Cyphos 3453W Phosphonium Salt  
EPA Registration Number: 68387-10  
Application Date: 2/13/2015  
Decision Number: 500481

Dear Mr. Kelly:

The Confidential Statement of Formula (CSF) referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

Please note that the record for this product currently contains the following CSFs:

- Basic CSF dated 2/9/2015

Any CSFs other than those listed above are superseded/no longer valid. If you have any questions, please contact Drusilla Copeland by phone at 703-308-6224, or via email at [copeland.drusilla@epa.gov](mailto:copeland.drusilla@epa.gov).

Page 2 of 3  
EPA Reg. No. 68387-10  
Decision No. 500481

Sincerely,

*Druella Copeland* for

Velma Noble  
Product Manager 31  
Regulatory Management Branch I  
Antimicrobials Division (7510P)  
Office of Pesticide Programs

Enclosure: Product Chemistry review dated 3/31/2015

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



United States  
Environmental Protection  
Agency

**Office of Pesticide Programs**

**Antimicrobials Division (AD)**

March 31, 2015

EPA Reg #: <b>68387-10</b>		DP #: <b>425939</b>	
		Submission #: <b>964458</b>	E-Submission #:
Product name: <b>Cyphos 3453W Phosphonium Salt</b>		Registrant: <b>Cytec Industries, Inc.</b>	
Reviewer's name: <b>Gabriela Luta</b>		AD/PSB/CTT - Product Chemistry	
Agency due date: <b>05/14/2015</b>		PSB received date: <b>03/16/2015</b>	
CTT received date: <b>03/17/2015</b>		Science received date: <b>03/18/2015</b>	
Formulation type: <b>EP</b>		Pesticide Classification: <b>Antimicrobial</b>	
Integrated system: <input checked="" type="checkbox"/>	Non-integrated system: <input type="checkbox"/>	Food use: <input type="checkbox"/>	Non-food use: <input checked="" type="checkbox"/>
Action Code: <b>362</b>		Date Completed:	
<b>PC Code</b>	<b>CAS#</b>	<b>Active Ingredient Names</b>	<b>% wt (label)</b>
<b>128824</b>	<b>81741-28-8</b>	<b>Tributyl tetradecyl phosphonium chloride</b>	<b>50.0</b>
Test Lab: <b>N/A</b>			
MRID(s): <b>N/A</b>			
Approver: <b>Karen P. Hicks</b>		Approved date: <b>March 31, 2015</b>	
Guideline:			
Comments:			

GL

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



United States  
Environmental Protection  
Agency

**Office of Pesticide Programs**

**Antimicrobials Division (AD)**

March 31, 2015

**MEMORANDUM**

**Subject:** Product Chemistry Review for EPA Reg # 68387-10  
DP #: 425939  
Product Name: Cyphos 3453W Phosphonium Salt

**FROM:** Gabriela Luta, Chemist *Gr. Luta*  
Product Science Branch, CT Team  
Antimicrobial Division (7510P)

**THRU:** Karen P. Hicks, CT Team Leader  
Product Science Branch  
Antimicrobial Division (7510P) *[Signature]*

**TO:** Velma Noble / Drusilla Copeland  
PM Team 31

**Applicant:** Cytec Industries, Inc.

**Action code:** 362

**Due date:** 05/14/2015

**Product Formulation from Label**

**% by wt.**

**Active Ingredient:**

Tributyl tetradecyl phosphonium chloride ..... 50.0

**Total:** ..... 100.0

## BACKGROUND:

On behalf of the registrant, **Cytec Industries, Inc.**, the agent Toxcel is submitting a proposed amendment for the product **Cyphos 3453W Phosphonium Salt** (EPA Reg # **68387-10**). The purpose of the amendment is to update the Confidential Statement of Formula (CSF) for the basic formulation with revised certified limits, based on the completed Storage Stability and Corrosion Characteristics report. This antimicrobial, integrated, non-food, end-use product is formulated as an algacide, bactericide, and fungicide for various industrial water system applications.

The Product Chemistry Reviewer has reviewed the following documents:

- A letter from the registrant, dated 02/13/2015.
- The CSF for the proposed basic formulation, dated 02/09/2015.
- MRID #49571901: Storage Stability and Corrosion Characteristics, dated 02/11/2015.
- The CSF for the currently approved basic formulation, dated 08/27/2014. (Reference)
- Product label, dated 04/29/2013. (Reference)

## FINDINGS:

1. The CSF for the basic formulation, dated 02/09/2015, and the label have the same nominal concentration for the AI.
2. All the components met the EPA 40 CFR standard certified limits.
3. All ingredients in formulation are approved for non-food pesticidal formulations.

## CONCLUSION:

The proposed CSF for the basic formulation of the antimicrobial, integrated, non-food, end-use product **Cyphos 3453W Phosphonium Salt** (EPA Reg # **68387-10**), dated 02/09/2015, is acceptable. The new CSF supercedes all previous basic CSFs for this product.

# DATA PACKAGE BEAN SHEET

Date: 04-Mar-2015

Page 1 of 1

Decision #: 500481

DP #: (425939)

NON PRIA

Parent DP #:

Submission #: 964458

E-Sub #:

## \*\*\* Registration Information \*\*\*

Registration: 68387-10 - CYPHOS 3453W PHOSPHONIUM SALT

Company: 68387 - CYTEC INDUSTRIES INC

Risk Manager: RM 31 - Velma Noble - (703) 308-6233 Room# PY1 S-8855

Risk Manager Reviewer: Drusilla Copeland DCOPELAN

Sent Date: \_\_\_\_\_

PRIA Due Date: 14-May-2015

Edited Due Date: \_\_\_\_\_

Type of Registration: Product Registration - Section 3

Action Desc: (362) FORMULA CHANGE; TECHNICAL;

Ingredients: 128824, Tri-n-butyl tetradecyl phosphonium chloride(50%)

## \*\*\* Data Package Information \*\*\*

Expedite: ☐ Yes ☒ No

Date Sent: 04-Mar-2015

Due Back: \_\_\_\_\_

DP Ingredient: 128824, Tri-n-butyl tetradecyl phosphonium chloride

DP Title: Product Chemistry

CSF Included: ☒ Yes ☐ No

Label Included: ☐ Yes ☒ No

Parent DP #: \_\_\_\_\_

### Assigned To

### Date In

### Date Out

Organization: AD / PSB

3/16

Last Possible Science Due Date: 30-Mar-2015

Team Name: CTT

3/17

Science Due Date: \_\_\_\_\_

Reviewer Name:

Gabby

3/18

Sub Data Package Due Date: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

## \*\*\* Studies Sent for Review \*\*\*

No Studies

## \*\*\* Additional Data Package for this Decision \*\*\*

No Additional Data Packages

## \*\*\* Data Package Instructions \*\*\*

Product Chemistry - Cytec Industries Inc, Submitted Confidential Statement of Formula of one-year storage stability. Also, the cover letter.



	United States <b>Environmental Protection Agency</b> Washington, DC 20460	<input type="checkbox"/> <b>Registration</b> <input checked="" type="checkbox"/> <b>Amendment</b> <input type="checkbox"/> <b>Other</b>	OPP Identifier Number
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**Application for Pesticide – Section 1**

1. Company/Product Number <b>68387-10</b>	2. EPA Product Manager <b>Velma Noble</b>	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) <b>Cytec Industries Inc.</b> <b>CYPHOS® 3453W Phosphonium Salt</b>	PM# <b>31</b>	
5. Name And Address Of Applicant (Include ZIP Code) <b>Cytec Industries Inc.</b> <b>Five Garret Mountain Plaza</b> <b>Woodland Park, NJ 07424</b>  <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

**Section II**

<input checked="" type="checkbox"/> Amendment – Explain below. <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input type="checkbox"/> Notification – Explain below.	<input type="checkbox"/> Final Printed labels in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application. <input type="checkbox"/> Other – Explain Below.
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**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

**Minor formulation amendment – submission of updated CSF and submission of one-year storage stability.**

**Section III**

1. Material This Product Will Be Packaged In:			
Child Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No <b>* Certification must be submitted</b>	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes"      No. per Unit Packaging wgt.      Container	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes"      No. per Unit Packaging wgt.      Container	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container <b>5 gal pail; 55 gal drum; 1000 L tote</b>		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithographed <input type="checkbox"/> Other _____ <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			

**Section IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name <b>J. Michael Kelley, PhD</b>	Title <b>toXcel LLC, Authorized Representative for Cytec Industries Inc.</b>	Telephone No. (Include Area Code) <b>703-754-0248 x112</b> <b>Mike.Kelley@toxcel.com</b>
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received  
2. Signature 	3. Title <b>toXcel LLC, Authorized Representative for Cytec Industries Inc.</b>	
4. Typed Name <b>J. Michael Kelley, PhD</b>	5. Date <b>13 February 2015</b>	

# toXcel

## Toxicology and Regulatory Affairs

7140 Heritage Village Plaza  
Gainesville, VA 20155-3061

49571900

Phone: (703) 754-0248

Fax: (703) 310-6950

13 February 2015

Ms. Velma Noble, PM-31  
Antimicrobial Division (7504P)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501

Re: Minor Formulation Amendment - Submission of Updated Confidential Statement of Formula Dated 9 February 2015 and One-Year Storage Stability Report for CYPHOS® 3453W Phosphonium Salt, EPA Reg. No. 68387-10

Dear Ms. Noble:

On behalf of Cytec Industries Inc. (Cytec), we are submitting the enclosed updated Confidential Statement of Formula (CSF) dated 9 February 2015 for EPA Reg. No. 68387-10. Two copies of the updated CSF are provided along with a courtesy copy of the CSF dated 27 August 2014 (and EPA approval letter) that it supersedes.

A single change has been made to this CSF. The upper certified limit for the active ingredient is increased to reflect storage conditions in the enclosed final Storage Stability report. The nominal and lower certified limits for the active ingredient, Tributyl tetradecyl phosphonium chloride (TTPC), remain unchanged. The results of the one-year storage stability study, herewith submitted, indicated a need for increasing the upper certified limit to 52.1% from 51.79%.

Although stated in the one-year storage stability report that the manufacturing specifications for CYPHOS® 3453W were 46-54%, this internal specification range has been updated at Cytec's manufacturing plant to 49.0-51.0%, which is more narrow than the current and requested certified limits.

If you have any questions or require additional information, please do not hesitate to contact me by phone at 703-754-0248 or by email at [mike.kelley@toxcel.com](mailto:mike.kelley@toxcel.com).

Sincerely,

  
J. Michael Kelley, Ph.D.  
Authorized Representative of Cytec

Enclosures

CC: P. Vernon (Cytec)  
T. McColl (Cytec)

## TRANSMITTAL DOCUMENT

### 1. Name and Address of Submitter

Cytec Industries Inc.  
Five Garrett Mountain Plaza  
Woodland Park, NJ 07424

Authorized Representative  
toXcel, LLC  
7140 Heritage Village Plaza  
Gainesville, VA 20155

### 2. Regulatory Action

Revised CSF and One-Year Storage Stability  
EPA Reg. No. 68387-10

### 3. Transmittal Date

13 February 2015

### 4. List of Submitted Studies/Documents

#### Admin

Cover letter,  
8570-1,  
Transmittal document,  
Current approved CSF dated 27 August 2014,  
Current EPA CSF approval dated 3 December 2014,  
Revised CSF dated 9 February 2015 (2 copies)

MRID 49571901

#### Volume 1

CYPHOS® 3453W Phosphonium Salt: Storage Stability  
and Corrosion Characteristics. Guidelines 830.6317 and  
830.6320. 11 February 2015. Lab Report No. 34774. 27  
pages.

### Company Name/Representative:

Company Name: Cytec Industries Inc.

Authorized Representative:

  
J. Michael Kelley, PhD  
toXcel LLC

13 February 2015  
Date

7140 Heritage Village Plaza  
Gainesville, VA 20155  
Email: Mike.Kelley@toxcel.com  
Telephone: (703) 754-0248 x112  
Fax: (703) 310-6950

# Material Sent for Data Extraction

Reg # 68387-RN

Description: \_\_\_\_\_

☒ Material(s) Sent to Data Extraction Contractors:

☒ New Stamped Label Dated \_\_\_\_\_

☐ Notification Dated \_\_\_\_\_

☒ New CSF(s) Dated \_\_\_\_\_

☐ Other: \_\_\_\_\_

☐ Decision #: \_\_\_\_\_

☐ Other Action/Comments: \_\_\_\_\_

Attach this coversheet to the top of the material or jacket. It must be well organized and clipped together, NOT STAPLED. Then give the material with this coversheet to staff in the Information Services Center (Room S-4900).

Reviewer: D. Copeland

Phone: \_\_\_\_\_ Division: AD

Date: 4/24/13  
Created February 3, 2011



U.S. ENVIRONMENTAL PROTECTION  
AGENCY

Office of Pesticide Programs  
Antimicrobials Division (7510P)  
1200 Pennsylvania Avenue NW  
Washington, D.C. 20460

NOTICE OF PESTICIDE:

  x   Registration  
      Reregistration

(under FIFRA, as amended)

EPA Reg.

Number:

68387-10

Date of Issuance:

Term of Issuance:

Conditional

Name of Pesticide Product:

CYPHOS 3453W Phosphonium  
Salt

Name and Address of Registrant (include ZIP Code):

Cytec Industries Inc.  
Five Garret Mountain Plaza  
Woodland Park, NJ 07424

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product (OPP Decision No. D-411089) is conditionally registered in accordance with FIFRA sec 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for re-registration of your product under FIFRA section 4.

2. Make the labeling changes listed below before you release the product for shipment:

a. Revise the "EPA Registration Symbol to read, "EPA Reg. No." 68387-10

Signature of Approving Official:

Verma Noble

Product Manager Team-31  
Regulatory Management Branch  
Antimicrobials Division (7510P)

Date:

APR 29 2013

4. Submit three (3) copies of your final printed labeling before distributing or selling the product bearing the revised labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records. Should you have any questions regarding this letter, please contact.

Sincerely,

A handwritten signature in black ink, appearing to read 'Velma Noble', with a long horizontal flourish extending to the right.

Velma Noble  
Product Manager (31)  
Regulatory Management Branch  
Antimicrobials Division (7510P)

Enclosure: stamped label, chemistry review dated 3/29/13 and acute tox review

# CYPHOS® 3453W Phosphonium Salt

For use as an algicide, bactericide, fungicide, for the control of algae, slime forming bacteria, sulfate reducing bacteria, and fungi in air-washers and industrial air scrubbing systems, recirculating cooling water and process water systems including cooling towers, evaporative coolers, brewery pasteurizers, can warmers, and hydrostatic sterilizers and retorts, non-food contact paper and paperboard process water (e.g.: brown paper, corrugated sheet, Kraft paper, newsprint, etc.), and enhanced oil recovery systems, oil and gas production and transmission pipelines and systems, gas storage wells and systems, hydrotesting of pipelines and tanks, pipeline pigging and scraping operations and oil and gas well drilling and maintenance fluids.

FOR INDUSTRIAL APPLICATIONS using closed metered delivery systems only.

ACTIVE INGREDIENT: Tributyl Tetradecyl Phosphonium Chloride..... 50.0%  
OTHER INGREDIENTS ..... 50.0%  
TOTAL: 100.0%



**DANGER - POISON – PELIGRO**

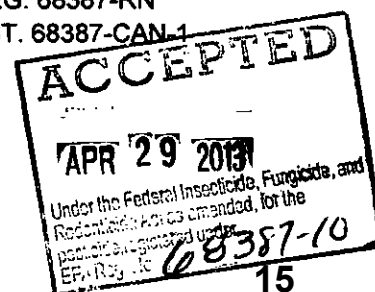
**KEEP OUT OF REACH OF CHILDREN**

FIRST AID	
If Inhaled	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If on Skin	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If In Eyes	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If Swallowed:	<ul style="list-style-type: none"><li>• Call poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 or 703-527-3887 for emergency medical treatment information.	
Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.	

Manufactured by:  
CYTEC INDUSTRIES INC.  
Five Garret Mountain Plaza  
Woodland Park, NJ 07424

EPA REG. 68387-RN  
EPA EST. 68387-CAN-1

NET WEIGHT: ## lbs (##kg)



**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
DANGER/PELIGRO - POISON**

Fatal if absorbed through skin or inhaled. **CORROSIVE.** Causes irreversible eye damage and skin burns. Harmful if swallowed. Do not get in eye, on skin, or on clothing. Do not breathe spray mist. Wear respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval prefix number TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with an N, R, P, or HE prefilter. Wear coveralls worn over long-sleeved shirt and long pants, socks, chemical-resistant footwear, chemical resistant gloves, and protective eyewear (goggles or face mask). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not mix with other chemicals. Mix only with water.

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

**DIRECTIONS FOR USE:**

**It is a violation of federal law to use this product in a manner inconsistent with its labeling. Read entire label and use strictly in accordance with precautionary statements and directions.**

This product must be loaded and transferred only using a metering-pump system or a closed loading/application system. Open pouring is prohibited. Wear coveralls worn over long-sleeved shirt and long pants, socks, chemical-resistant footwear, chemical resistant gloves, and protective eyewear (goggles or face mask). Be sure to release any pressure in the container prior to fully opening. This can be done by loosening the closure prior to fully opening the container. **DO NOT OPEN WITH FACE CLOSE TO THE CONTAINER OPENING.**

**RECIRCULATING COOLING AND PROCESS WATER SYSTEMS / AIR WASHERS AND INDUSTRIAL AIR SCRUBBING SYSTEMS:**

When used as directed, this product effectively controls algal, bacterial, and fungal slimes in commercial and industrial cooling towers, evaporative condensers, heat exchange water systems, evaporative coolers, dairy sweetwater systems, industrial process water systems, brewery pasteurizers, can warmers, hydrostatic sterilizers and retorts, air washing systems equipped with a mist eliminator, and industrial air scrubbing systems. Add this product at a point of uniform mixing such as the basin area.

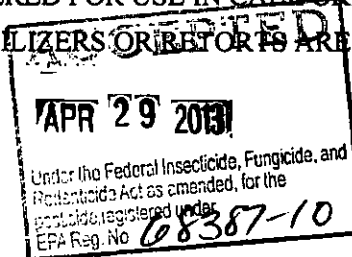
**DOSAGE RATES FOR ABOVE APPLICATIONS:**

Initial Dose: When the system is noticeably fouled, add 2.6 to 7.7 fluid ounces of product per 1000 gallons (20 to 60 milliliters/1000 liters) of water contained in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 1.3 to 3.8 fluid ounces of product per 1000 gallons (10 to 30 milliliters/1000 liters) of water contained in the system. Repeat as needed to maintain control.

Heavily fouled systems must be cleaned before treatment is begun.

[DAIRY SWEETWATER SYSTEM APPLICATIONS ARE NOT REGISTERED FOR USE IN CALIFORNIA]  
[BREWERY PASTEURIZERS, CAN WARMERS, HYDROSTATIC STABILIZERS OR RETORTS ARE NOT REGISTERED FOR USE IN CALIFORNIA]





[AIR-WASHER OR AIR SCRUBBER SYSTEM APPLICATIONS ARE NOT REGISTERED FOR USE IN CALIFORNIA]

**PULP, PAPER, AND PAPERBOARD MILLS:**

THIS PRODUCT IS ONLY FOR USE IN NON-FOOD APPLICATION, such as brown paper mills, sheet for corrugated board, Kraft paper, newsprint and similar paper / paperboard not intended for food contact uses.

- a) When used as directed this product effectively controls bacterial and fungal slimes in pulp, paper, and paperboard mill process water systems including white water systems. Treat water at critical areas in the system where mixing of the product will be uniform such as beaters, furnish chest, white-water tank, save-all, and broke chest. The frequency and duration of the treatment will depend upon the severity of the problem.

**DOSAGE RATES**

Initial Dose: When the system is noticeably fouled, add 0.5 to 3.0 pounds of this product per ton of pulp or paper (dry basis) as a slug dose. Repeat until control is achieved. Heavily fouled systems must be cleaned before initial treatment.

Subsequent Dose: When biological control is evident, add 0.3 to 2.0 pounds of product per ton of pulp or paper (dry basis) as a slug dose as necessary to maintain control.

- b) When used as directed this product effectively controls bacterial and fungal slime in water-based coatings, starches, pigments and filler slurries. Do not use in paper and paperboard and adhesives that will contact food, such as brown paper mills, sheet for corrugated board, Kraft paper, newsprint and similar paper/paperboard not intended for food contact uses. The treatment rate necessary to retard spoilage of the additive will vary with the extent of the contamination of make-up water and the length of storage.

**DOSAGE RATES**

Apply 200-1000 ppm of product to the additive to be preserved based on the total weight of the additive and water.

[PULP, PAPER, AND PAPERBOARD MILLS APPLICATIONS ARE NOT REGISTERED FOR USE IN CALIFORNIA.]

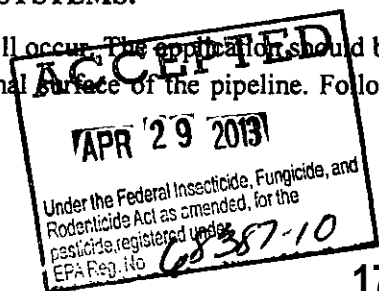
**ENHANCED OIL RECOVERY SYSTEMS:**

**NOT FOR USE IN ESTUARINE OR MARINE OIL RECOVERY SYSTEMS.** When used as directed this product effectively controls slime-forming and sulfate-reducing bacteria in injection and produced water systems, water disposal systems, and other oilfield water systems. Treat water at critical points in the system such as water or oil storage tanks, surge tanks, oil-water separators, before or after injection pumps, and injection well headers.

**DOSAGE RATES FOR ENHANCED OIL RECOVERY SYSTEMS:** When the system is noticeably fouled, or to maintain control in the system, add 4.2 to 42 gallons of this product per 1000 barrels of water as a slug dose for 1-8 hours per day, 1-4 times per week.

**OIL AND GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS:**

This product should be added at a point in the pipeline where uniform mixing will occur. The application should be conducted to ensure maximum distribution of product through the entire internal surface of the pipeline. Follow dosing instructions for enhanced oil recovery systems.



## **GAS STORAGE WELLS AND SYSTEMS:**

Individual injection wells should be treated with a sufficient quantity of product to produce a concentration of 100-1000 ppm of this product when diluted by the water present in the formation. Injections should be repeated as needed to maintain control.

Individual drips should be treated with sufficient quantity of this product to produce a concentration of 100-1000 ppm of this product when diluted by the water present in the drips. Injections should be repeated as needed to maintain control.

## **HYDROTESTING:**

Water used to hydrotest pipelines or vessels should contain 100-1000 ppm of product, depending on water quality and length of time the equipment will remain idle.

## **PIPELINE PIGGING AND SCRAPING OPERATIONS:**

Add this product to a slug of water immediately following the scraper (ideally this water volume can be kept to a minimum and contained between the scraper and a trailing pig). Sufficient product should be added to produce a concentration of 100-1000 ppm of this product in the water at the discharge point or pig trap depending on the length of the pipeline and the severity of biofouling.

## **DRILLING, PACKER, COMPLETION, WORKOVER AND FRACTURING FLUIDS:**

This product should be added to these fluids at a point where uniform mixing will occur. Add 100-1000 ppm of this product to a freshly prepared fluid depending on the severity of contamination.

[ENHANCED OIL RECOVERY SYSTEMS ARE NOT REGISTERED FOR USE IN CALIFORNIA.]

## **STORAGE AND DISPOSAL:**

Do not contaminate water, food, or feed by storage and disposal.

**PESTICIDE STORAGE:** Keep product dry and store in a cool, dry, well-ventilated area away from heat or open flame. Store in original container.

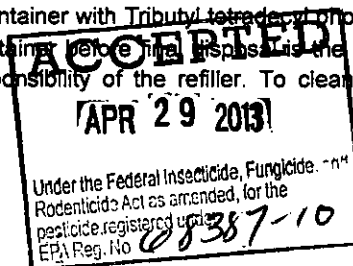
**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

*{Text for non-refillable containers}*

**CONTAINER DISPOSAL:** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. *{For containers of 5 gallons or less}* [Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.] *{For containers with capacities of greater than 5 gallons}* [Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

*{Text for refillable containers}*

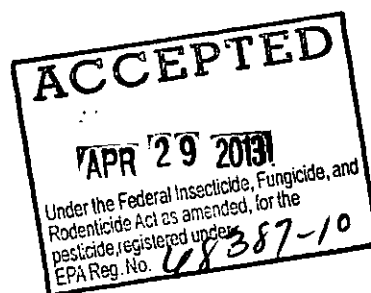
**CONTAINER DISPOSAL:** Refillable container. Refill this container with Tributyl tetradecyl phosphonium chloride only. Do not reuse this container for any other purpose. Cleaning the container before refilling is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final



disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

### **WARRANTY**

Seller warrants that the product conforms to its chemical description and when used according to label directions under normal conditions of use, it is reasonably fit for the purpose stated on the label. To the extent consistent with applicable law, seller makes no other warranty, either expressed or implied, and buyer assumes all risk should the product be used contrary to label instructions.



Copeland, Drusilla

*Note to F.I.L. - Bottom of page*

**From:** Jennifer Wagar [Jennifer.Wagar@toxcel.com]  
**Sent:** Wednesday, April 24, 2013 2:45 PM  
**To:** Copeland, Drusilla  
**Cc:** Noble, Velma; Jane Eickhoff; 'Pat Quinn'  
**Subject:** RE: 68387-RN Pre-decisional Determination Letter  
**Attachments:** 68387-RN Pre-Decisional Determination LTR PRIA 3.doc.pdf;  
068387-000RN.20130424.revised per EPA predecisional letter track-changes.pdf;  
068387-000RN.20130424.revised per EPA predecisional letter.pdf

Dear Ms. Copeland,

On behalf of Cytec Industries Inc., we are responding to your April 24, 2013, Pre-Decisional Letter (copy is attached) regarding EPA File Symbol 68387-RN.

In your letter, you listed labeling changes required for the CYPHOS® 3453W Phosphonium Salt label. Attached, please find a copy of the revised labeling in agreement with the changes requested in your pre-decisional letter. I have also included a copy with track-changes to enable you to see the changes we have made more easily. Specifically, these changes are as follows.

Precautionary Statements

The precautionary statements have been revised to include the language requested in your April 24, 2013 letter. The order of the statements has been changed to coincide with the order in your letter. Also, the respirator language has been added, as requested.

First Aid Statements

The order of the first aid statements has been revised to reflect the April 24, 2013 letter. The order is now: (1) if inhaled, (2) if on skin, (3) if in eyes, and (4) if swallowed.

Note to Physician

The Note to Physician has not been changed. In reviewing the MSDS for the CYPHOS® 3453W Phosphonium Salt product as well as the Note to Physician on the Bellacide® 350 label, we cannot identify any additional statements that should be added. For this reason, we have maintained the current Note to Physician as the following: "Probable mucosal damage may contraindicate the use of gastric lavage." Let me know if there is something that you would like for me to add.

We understand, per your April 24, 2013 pre-decisional letter, that the Agency will review the revised labeling within two business days. Please confirm that we should receive accepted stamped labeling by Friday, April 26th. If you have any questions, please contact me at [Jennifer.wagar@toxcel.com](mailto:Jennifer.wagar@toxcel.com) or 703-754-0248 x116 to discuss.

Regards,  
Jennifer Wagar

Jennifer Wagar  
Senior Associate Scientist  
toXcel LLC  
7140 Heritage Village Plaza  
Gainesville, VA 20155  
Phone - 703-754-0248 x116  
Fax - 703-310-6950  
[jennifer.wagar@toxcel.com](mailto:jennifer.wagar@toxcel.com)  
[www.toxcel.com](http://www.toxcel.com)

*I am Blackwell agreed with  
Note to Physician (circled below)  
for label  
Verna M. Hille  
4-30-13*

IB

UNITED STATES ENVIRONMENTAL PROTECTION  
AGENCY  
WASHINGTON, D.C. 20460



United States  
Environmental Protection  
Agency


Office of Pesticide Programs


**Antimicrobials Division (AD)**

Wednesday, April 17, 2013

MEMORANDUM

Subject: Acute Toxicity Review for EPA Reg. No.: 68387-RN  
DP Barcode: D411089  
Product Name: Cyphos 3453W Phosphonium Salt

From: Ian Blackwell, Biologist   
Chemistry and Toxicology Team  
Product Science Branch  
Antimicrobials Division (7510P)


Through: Karen Hicks, Team Leader  
Chemistry and Toxicology Team  
Product Science Branch  
Antimicrobials Division (7510P) 

To: Velma Noble, PM 31/ Drusilla Copeland  
Regulatory Management Branch  
Antimicrobials Division (7510P)

Applicant: Cytec Industries, Inc.

**FORMULATION FROM LABEL:**

<u>PC Code</u>	<u>Active Ingredient(s):</u>	<u>% by wt.</u>
128824	Tributyl tetradecyl phosphonium chloride	50.0
	<u>Other Ingredient(s):</u>	50.0
	Total:	100.00



- I **BACKGROUND:** Cytec Industries, Inc., has submitted an acute inhalation toxicity study and a request for the waiver of the dermal sensitization study for their product, "Cyphos 3453W Phosphonium Salt".

The registrant's rationale for the waiver of the dermal sensitization study (MRID 48990603) is based upon the corrosive nature of the product, according to the registrant.

In support of the other four studies, the registrants cite the following data.

Study	MRID Number(s)
Acute Oral Toxicity	133040, 133401
Acute Dermal Toxicity	133042, 133043
Primary Eye Irritation	133044, 133045
Primary Skin Irritation	133046

According to OPPIN, each of these four studies was submitted in support of EPA File Symbol 279-GRUN.

On 4/10/2013, the Chemistry and Toxicology Team was presented with a letter from Jennifer Wagar of Toxcel. This letter referred to D394380, which in turn lead to a Toxicology Chapter/ Hazard Characterization for the Human Health Assessment Scoping Document. This document was written by the Risk Assessment and Science Support Branch on 10/25/2011.

II **RECOMMENDATIONS:**

1. The acute inhalation toxicity study is acceptable. This study was ended early due to the death of 9/10 subjects at the single dosage of 0.053 mg/L. Typically, when one dosage of 0.05 mg/L is tested, the study must be rejected. However, almost all of the animals tested at this dosage died or had to be killed. This study could be considered a reverse limit test.
2. CTT will allow the registrants to cite the 10/25/2011 "Tri-N-Butyl Tetradecyl Phosphonium Chloride (TTPC; Bellacide 350): Toxicology Chapter/ Hazard Characterization for the Human Health Assessment Scoping Document in Support of Registration Review of TTPC" in support of the acute toxicity requirements of EPA File Symbol 68387-RN.
3. The Chemistry and Toxicology Team (CTT) will also use this same document to address the dermal sensitization study. So, no waiver of this study is needed.

The acute toxicity profile for File Symbol 68387-RN is currently:

Study	MRID Number	Toxicity Category	Study Status
Acute Oral Toxicity	133040, 133401	III	Cited
Acute Dermal Toxicity	133042, 133043	I	Cited
Acute Inhalation Toxicity	48990602	I	Acceptable
Primary Eye Irritation	133044, 133045	I	Cited
Primary Skin Irritation	133046	I	Cited
Dermal Sensitization	48990603	Nonsensitizer	Cited

### III LABELING: Label Review System

PRODUCT ID #: 068387-00010

PRODUCT NAME: Cyphos 3453W Phosphonium Salt

#### PRECAUTIONARY STATEMENTS

SIGNAL WORD: DANGER POISON

#### Hazards to Humans and Domestic Animals:

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Child Resistant Packaging Required.

Fatal if inhaled or absorbed through skin. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Do not breathe spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear protective eyewear (goggles, face shield, or safety glasses). Wear respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH

approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE prefilter. Wear coveralls worn over long-sleeved shirt and long pants, socks, chemical-resistant footwear, and gloves. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

First Aid:

If inhaled:

- Move the person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

If on skin:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

If in eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a poison control center or doctor for treatment advice.

If swallowed:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything to an unconscious person.

NOTE TO PHYSICIAN: Note to PM/CRM/Registrant: The proposed label should contain a Note to Physician which addresses the category I Acute Dermal Toxicity, Acute Inhalation Toxicity, Primary Skin Irritant toxicity, Primary Eye Irritant toxicity. The following statements are suggested types of information that may be included, if applicable:

- technical information on symptomatology;
- use of supportive treatments to maintain life functions;
- medicine that will counteract the specific physiological effects of the pesticide;
- company telephone number to specific medical personnel who can provide specialized medical advice.



Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.

Label Created by: Ian Blackwell on 04/10/2013 Last Updated by: Ian Blackwell on 04/10/2013

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460**



United States  
Environmental Protection  
Agency

**Office of Pesticide Programs**

**Antimicrobials Division (AD)**

March 29, 2013

EPA Reg#: 68387-RN		DP Barcode: D407282	
		Submission #: 926605	
Product name: Cyphos 3453W Phosphonium Salt		Registrant: Cytec Industries Incorporated	
Reviewer's name: Chris Jiang		AD/PSB/CTT- Product Chemistry Review	
Agency due date: April 30, 2013		PSB received date: December 4, 2012	
CTT received date: December 4, 2012		Science due date: March 31, 2013	
Formulation type: TGA1 ; MUP ; EUP X			
Integrated system: <input checked="" type="checkbox"/>	Non integrated system: <input type="checkbox"/>	Food use: <input type="checkbox"/>	Non food use: <input checked="" type="checkbox"/>
Action Code: A532		Date Completed: March 29, 2013	
PC Code(s)	CAS #(s)	Active Ingredient Names	% wt (label)
128824	81741-28-8	Tributyl tetradecyl phosphonium chloride	50.0
Molecule structure (optional):			
Test Lab: Eurofins  Product Safety Labs			
MRID(s): 48990601			
Approver: Karen P. Hicks		Approved date: March 29, 2013	
Guideline: 830 Guidelines			
Comments:			

W 4/3/13



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF  
CHEMICAL SAFETY  
AND POLLUTION  
PREVENTION

March 29, 2013

**MEMORANDUM**

**Subject:** Review for 68387-RN

**From:** Chris Jiang, Chemist  
Chemistry and Toxicology Team  
Product Science Branch  
Antimicrobials Division (7510P)

**Thru:** Karen P. Hicks, CT Team Leader  
Chemistry and Toxicology Team  
Product Science Branch  
Antimicrobials Division (7510P)

**To:** Velma Noble PM 31/Drusilla Copeland Copeland  
Regulatory Management Branch I  
Antimicrobials Division (7510P)

**Applicant:** Cytec Industries Incorporated

*Chris Jiang*  
3/29/13

*Karen P. Hicks*

**Formulation from Label**

<u>Active Ingredient(s)</u>	<u>% by wt.</u>
Tributyl tetradecyl phosphonium chloride	50.0
<u>Other Ingredients</u>	50.0
Total	100.0

Skull and crossbones included

## **BACKGROUND:**

The registrant has submitted a product chemistry package for a new end-use product that is produced from an integrated process. The package includes a label, a Confidential Statement of Formula for the basic formulation, a data matrix, and product chemistry requirements that are identified by the Agency as MRID 48990601.

## **FINDINGS:**

1. The concentration of the active ingredient on the Confidential Statement of Formula (CSF dated 28 March 2013 for the basic formulation) is consistent with the label declaration. This CSF supersedes all previous CSFs for the basic formulation.
2. All ingredients are approved for non-food use in pesticidal products.
3. The product identity and composition is **acceptable**.
4. The description of the starting materials is **acceptable**.
5. The description of the production process is the same as the description of the formulation process. Both descriptions are **acceptable**.
6. The description of the formulation process is **acceptable**.
7. The discussion of the formation of impurities is **acceptable**.
8. The preliminary analysis is **acceptable**.
9. The wider certified limits are **acceptable** as shown by the preliminary analysis data.
10. The enforcement analytical method is **acceptable**.
11. The color, physical state, and odor are **acceptable** as the product is a pale yellow clear viscous liquid with a slight odor.
12. The density is **acceptable** as it was determined to be 0.959 g/mL.
13. The pH is **acceptable** as the pH was determined to be 5.59.
14. The oxidation/reduction potential is **acceptable** as the product does not contain any oxidizing or reducing agents.
15. The flammability is **acceptable** as the product does not contain any combustible liquids.

16. The explodability is **acceptable** as the product is not potentially explosive.
17. A joint study for storage stability and corrosion characteristics is ongoing.
18. The viscosity is **acceptable** as the viscosity was determined to be 73.7 cSt at 20 °C and 22.0 cSt at 40 °C.
19. The miscibility is **acceptable** as the product is not to be diluted with petroleum solvents.
20. The dielectric breakdown voltage is **acceptable** as the product is not for use around electrical equipment.

#### **CONCLUSIONS:**

Product Science Branch of Antimicrobials Division finds the CSF for the basic formulation dated March 28, 2013 for 68387-RN to be acceptable, pending submission and acceptance of the joint study for storage stability and corrosion characteristics.

APR 24 2013

Patricia Ann Vernon  
 Cytec Industries Inc.  
 Five Garret Mountain Plaza  
 Woodland Park, NJ 07424  
 Allendale, NJ 07401

Subject: **Cyphos 3453W Phosphonium Salt**  
 EPA Registration Number 68387-RN  
 Application Dated November 8, 2012  
 EPA Received November 9, 2012

The Agency has completed its review and assessment of your application pursuant to Section 33(b)(3) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as amended by the Pesticide Registration Improvement Extension Act of 2012. The Agency has made a pre-decisional determination that your application cannot be approved unless revisions are made to the label. The necessary label changes are specified below:

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**  
**DANGER-PELIGRO - POISON**

Fatal if inhaled or absorbed through skin. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Do not breathe spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear protective eyewear (goggles, face shield, or safety glasses). Wear respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE prefilter. Wear coveralls worn over long-sleeved shirt and long pants, socks, chemical-resistant footwear, and gloves. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

**First Aid:****If inhaled:**

- Move the person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

**If on skin:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

**If in eyes:**

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a poison control center or doctor for treatment advice.

**If swallowed:**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything to an unconscious person.

**NOTE TO PHYSICIAN:** Note to PM/CRM/Registrant: The proposed label should contain a Note to Physician which addresses the category I Acute Dermal Toxicity, Acute Inhalation Toxicity, Primary Skin Irritant toxicity, Primary Eye Irritant toxicity. The following statements are suggested types of information that may be included, if applicable:

- technical information on symptomatology;
- use of supportive treatments to maintain life functions;
- medicine that will counteract the specific physiological effects of the pesticide;
- company telephone number to specific medical personnel who can provide specialized medical advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.

Since there is limited time before the PRIA Decision Due Date expires April 30, 2013, it is important to discuss any objections you have to these changes immediately and whether you will need to submit additional data for review. If these discussions determine that submitting data will be necessary, the PRIA decision due date may need to be renegotiated to allow sufficient time to address and resolve such differences. If the PRIA Decision Due Date is not renegotiated, and the label issues are not resolved before the PRIA Decision Due Date, the Agency will send a follow-up letter that will represent the Agency's decision to close out the PRIA decision review time. The follow-up letter will provide the following three options for continuing the review of the

application:

- (a) If all agrees to all of the terms associated with the draft accepted label as revised by the Agency and requests that it be issued as the accepted final Agency-stamped label; or
- (b) Applicant does not agree to one or more of the terms of the draft accepted label as revised by the Agency and requests additional time to resolve the difference(s); or
- (c) Applicant withdraws the application without prejudice for subsequent resubmission, but forfeits the associated registration service fee.

If the applicant informs EPA that it has concerns as described under (b) above, the applicant will have up to 30 calendar days from the date of that follow-up letter to reach agreement with the Agency on the final version of the label that the Agency will accept. If an agreement cannot be reached within those 30 days, EPA would intend to proceed with denial of the application.

If the applicant agrees to all of the terms of the accepted label as described in (a) above, or if the applicant and EPA resolve any differences as described in (b), the applicant must submit a revised label to EPA. EPA will then provide an accepted final Agency stamped label to the applicant within 2 business days following the applicant's written electronic confirmation of agreement to the Agency including the revised label to be stamped.

If you have any questions, please contact Drusilla Copeland (703) 308-6224 or Velma Noble (703) 308-6233.

Sincerely,



Velma Noble  
Product Manager 31  
Regulatory Management Branch I  
Antimicrobial Division (7510P)

Attachment: Acute Toxicity Review



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460**



United States  
Environmental Protection  
Agency

**Office of Pesticide Programs**

**Antimicrobials Division (AD)**

March 29, 2013

EPA Reg#: 68387-RN		DP Barcode: D407282 Submission #: 926605	
Product name: Cyphos 3453W Phosphonium Salt		Registrant: Cytec Industries Incorporated	
Reviewer's name: Chris Jiang		AD/PSB/CTT- Product Chemistry Review	
Agency due date: April 30, 2013		PSB received date: December 4, 2012	
CTT received date: December 4, 2012		Science due date: March 31, 2013	
Formulation type: TGAI ; MUP ; EUP X			
Integrated system: <input checked="" type="checkbox"/>	Non integrated system: <input type="checkbox"/>	Food use: <input type="checkbox"/>	Non food use: <input checked="" type="checkbox"/>
Action Code: A532		Date Completed: March 29, 2013	
PC Code(s)	CAS #(s)	Active Ingredient Names	% wt (label)
128824	81741-28-8	Tributyl tetradecyl phosphonium chloride	50.0
Molecule structure (optional):			
Test Lab: Eurofins  Product Safety Labs			
MRID(s): 48990601			
Approver: Karen P. Hicks		Approved date: March 29, 2013	
Guideline: 830 Guidelines			
Comments:			

W 4/3/13



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF  
CHEMICAL SAFETY  
AND POLLUTION  
PREVENTION

March 29, 2013

**MEMORANDUM**

**Subject:** Review for 68387-RN

**From:** Chris Jiang, Chemist  
Chemistry and Toxicology Team  
Product Science Branch  
Antimicrobials Division (7510P)

**Thru:** Karen P. Hicks, CT Team Leader  
Chemistry and Toxicology Team  
Product Science Branch  
Antimicrobials Division (7510P)

**To:** Velma Noble PM 31/Drusilla Copeland Copeland  
Regulatory Management Branch I  
Antimicrobials Division (7510P)

**Applicant:** Cytec Industries Incorporated

*Chris Jiang*  
3/29/13

*Karen P. Hicks*

**Formulation from Label**

<u>Active Ingredient(s)</u>	<u>% by wt.</u>
Tributyl tetradecyl phosphonium chloride	50.0
<u>Other Ingredients</u>	50.0
Total	100.0

Skull and crossbones included

## **BACKGROUND:**

The registrant has submitted a product chemistry package for a new end-use product that is produced from an integrated process. The package includes a label, a Confidential Statement of Formula for the basic formulation, a data matrix, and product chemistry requirements that are identified by the Agency as MRID 48990601.

## **FINDINGS:**

1. The concentration of the active ingredient on the Confidential Statement of Formula (CSF dated 28 March 2013 for the basic formulation) is consistent with the label declaration. This CSF supersedes all previous CSFs for the basic formulation.
2. All ingredients are approved for non-food use in pesticidal products.
3. The product identity and composition is **acceptable**.
4. The description of the starting materials is **acceptable**.
5. The description of the production process is the same as the description of the formulation process. Both descriptions are **acceptable**.
6. The description of the formulation process is **acceptable**.
7. The discussion of the formation of impurities is **acceptable**.
8. The preliminary analysis is **acceptable**.
9. The wider certified limits are **acceptable** as shown by the preliminary analysis data.
10. The enforcement analytical method is **acceptable**.
11. The color, physical state, and odor are **acceptable** as the product is a pale yellow clear viscous liquid with a slight odor.
12. The density is **acceptable** as it was determined to be 0.959 g/mL.
13. The pH is **acceptable** as the pH was determined to be 5.59.
14. The oxidation/reduction potential is **acceptable** as the product does not contain any oxidizing or reducing agents.
15. The flammability is **acceptable** as the product does not contain any combustible liquids.

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17. A joint study for storage stability and corrosion characteristics is ongoing.
18. The viscosity is **acceptable** as the viscosity was determined to be 73.7 cSt at 20 °C and 22.0 cSt at 40 °C.
19. The miscibility is **acceptable** as the product is not to be diluted with petroleum solvents.
20. The dielectric breakdown voltage is **acceptable** as the product is not for use around electrical equipment.

#### **CONCLUSIONS:**

Product Science Branch of Antimicrobials Division finds the CSF for the basic formulation dated March 28, 2013 for 68387-RN to be acceptable, pending submission and acceptance of the joint study for storage stability and corrosion characteristics.

UNITED STATES ENVIRONMENTAL PROTECTION  
AGENCY  
WASHINGTON, D.C. 20460



United States  
Environmental Protection  
Agency


Office of Pesticide Programs


Antimicrobials Division (AD)

Wednesday, April 17, 2013

MEMORANDUM

Subject: Acute Toxicity Review for EPA Reg. No.: 68387-RN  
DP Barcode: D411089  
Product Name: Cyphos 3453W Phosphonium Salt

From: Ian Blackwell, Biologist   
Chemistry and Toxicology Team  
Product Science Branch  
Antimicrobials Division (7510P)

Through: Karen Hicks, Team Leader  
Chemistry and Toxicology Team  
Product Science Branch  
Antimicrobials Division (7510P) 

To: Velma Noble, PM 31/ Drusilla Copeland  
Regulatory Management Branch  
Antimicrobials Division (7510P)

Applicant: Cytec Industries, Inc.

FORMULATION FROM LABEL:

<u>PC Code</u>	<u>Active Ingredient(s):</u>	<u>% by wt.</u>
128824	Tributyl tetradecyl phosphonium chloride	50.0
	<u>Other Ingredient(s):</u>	50.0
	Total:	100.00

- I **BACKGROUND:** Cytec Industries, Inc., has submitted an acute inhalation toxicity study and a request for the waiver of the dermal sensitization study for their product, "Cyphos 3453W Phosphonium Salt".

The registrant's rationale for the waiver of the dermal sensitization study (MRID 48990603) is based upon the corrosive nature of the product, according to the registrant.

In support of the other four studies, the registrants cite the following data.

Study	MRID Number(s)
Acute Oral Toxicity	133040, 133401
Acute Dermal Toxicity	133042, 133043
Primary Eye Irritation	133044, 133045
Primary Skin Irritation	133046

According to OPPIN, each of these four studies was submitted in support of EPA File Symbol 279-GRUN.

On 4/10/2013, the Chemistry and Toxicology Team was presented with a letter from Jennifer Wagar of Toxcel. This letter referred to D394380, which in turn lead to a Toxicology Chapter/ Hazard Characterization for the Human Health Assessment Scoping Document. This document was written by the Risk Assessment and Science Support Branch on 10/25/2011.

## II **RECOMMENDATIONS:**

1. The acute inhalation toxicity study is acceptable. This study was ended early due to the death of 9/10 subjects at the single dosage of 0.053 mg/L. Typically, when one dosage of 0.05 mg/L is tested, the study must be rejected. However, almost all of the animals tested at this dosage died or had to be killed. This study could be considered a reverse limit test.
2. CTT will allow the registrants to cite the 10/25/2011 "Tri-N-Butyl Tetradecyl Phosphonium Chloride (TTPC; Bellacide 350): Toxicology Chapter/ Hazard Characterization for the Human Health Assessment Scoping Document in Support of Registration Review of TTPC" in support of the acute toxicity requirements of EPA File Symbol 68387-RN.
3. The Chemistry and Toxicology Team (CTT) will also use this same document to address the dermal sensitization study. So, no waiver of this study is needed.

The acute toxicity profile for File Symbol 68387-RN is currently:

Study	MRID Number	Toxicity Category	Study Status
Acute Oral Toxicity	133040, 133401	III	Cited
Acute Dermal Toxicity	133042, 133043	I	Cited
Acute Inhalation Toxicity	48990602	I	Acceptable
Primary Eye Irritation	133044, 133045	I	Cited
Primary Skin Irritation	133046	I	Cited
Dermal Sensitization	48990603	Nonsensitizer	Cited

**III LABELING:** Label Review System

PRODUCT ID #: 068387-00010

PRODUCT NAME: Cyphos 3453W Phosphonium Salt

**PRECAUTIONARY STATEMENTS**

**SIGNAL WORD:** DANGER POISON

**Hazards to Humans and Domestic Animals:**

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Child Resistant Packaging Required.

Fatal if inhaled or absorbed through skin. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Do not breathe spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear protective eyewear (goggles, face shield, or safety glasses). Wear respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH

approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE prefilter. Wear coveralls worn over long-sleeved shirt and long pants, socks, chemical-resistant footwear, and gloves. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### First Aid:

##### If inhaled:

- Move the person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

##### If on skin:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

##### If in eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a poison control center or doctor for treatment advice.

##### If swallowed:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything to an unconscious person.

NOTE TO PHYSICIAN: Note to PM/CRM/Registrant: The proposed label should contain a Note to Physician which addresses the category I Acute Dermal Toxicity, Acute Inhalation Toxicity, Primary Skin Irritant toxicity, Primary Eye Irritant toxicity. The following statements are suggested types of information that may be included, if applicable:

- technical information on symptomatology;
- use of supportive treatments to maintain life functions;
- medicine that will counteract the specific physiological effects of the pesticide;
- company telephone number to specific medical personnel who can provide specialized medical advice.



Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.

Label Created by: Ian Blackwell on 04/10/2013 Last Updated by: Ian Blackwell on 04/10/2013

APR - 8 2013

Patricia Ann Vernon  
Cytec Industries Inc.  
Five Garret Mountain Plaza  
Woodland Park, NJ 07424

Subject: **Cyphos 3453W Phosphonium Salt**  
EPA Registration Number 68387-RN  
Application Date: November 8, 2012  
EPA Receipt Date: November 9, 2012

Dear Ms. Vernon:

Our records indicate that the decision review period for EPA to make a determination regarding the above referenced application ends on **April 30, 2013** pursuant to the Pesticide Registration Improvement Act (PRIA). The application has been determined, pursuant to 40 CFR 152.105, not to be sufficiently complete to process; therefore, the application is considered deficient. Your options under 40 CFR 152.105 and section 33 of FIFRA are addressed separately because each involves a different timeframe and set of options for responding to this letter. Please ensure that you consider each of the sections below in determining how and when you respond to this letter.

40 CFR 152.105:

Pursuant to 40 CFR 152.105, you are allowed 75 days from the date of this letter to provide a response concerning the deficiencies listed in this letter. Your response may include making corrections to complete the application, or notifying the Agency of the date on which you expect to complete the application, or withdrawing your application. If you do not respond to this letter within 75 days or if you respond with a date on which you expect to complete the application but fail to meet that scheduled date, the Agency will treat the application as if you had withdrawn it.

CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

**Address the following deficiencies:**

The proposed product submitted for registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) is not acceptable.

**Acute Toxicity Review:**

1. The acute inhalation toxicity study is acceptable. This study was ended early due to the death of 9/10 subjects at the single dosage of 0.053 mg/L. Typically, when one dosage of 0.05 mg/L is tested, the study must be rejected. However, almost all of the animals tested at this dosage died or had to be killed. This study could be considered a reverse limit test.
2. The scientist must deny the citation of the four studies conducted using File Symbol 279-GRUN. The problem is that the file room has misplaced the file/jacket for this product. We cannot compare the formulation of 68387-RN to 279-GRUN because we cannot get a copy of it. Also, the studies cited appear to be very old. It is quite possible that they will not meet today's standards. You should consider some other form of support for these four studies.
3. The Chemistry and Toxicology Team (CTT) must deny waiver of the dermal sensitization study of Cyphos 3453W. The problem is that you have not demonstrated the corrosivity of the product.

**FIFRA Section 33/PRIA:**

This application is also subject to a deadline for making a determination on the application under FIFRA Section 33, Pesticide Registration Service Fees, established under PRIA. The time frame for the Agency to make a determination on this application ends on **April 15, 2012**. Because the deadline for the agency to make a determination on this application expires before the end of the 75 days you have to respond to the deficiencies noted above, you have the following three options:

**1. Establish a new due date.** You may resolve the issues identified in this letter by submitting a reply to the Agency **by April 15, 2013** with information as how you plan to address these deficiencies. Please include your proposed re-negotiated PRIA due date and the date you expect to submit the fix at this time. Your re-negotiated PRIA due date must include the date that you expect to submit the fix plus an additional 120 days for Agency review.

- a) Should your fix arrive prior to the current due date of **April 15, 2013** propose a renegotiated date of 120 days beyond the current due date for review.
- b) Should your fix arrive after the current due date, propose a renegotiated due date of 120 days beyond your fix date for Agency review.

- c) Should you provide your fix prior to **April 15, 2013** propose a renegotiated due date of 120 days beyond the current due date. If no other issues arise as a result of your response to this letter or during our review process, and the information is found to be acceptable, it is the Agency's expectation that resolution of the deficiencies will result in the granting of your application.

**2. Withdraw the application.** Alternatively, you may notify us not later than **April 15, 2013** that you are withdrawing your application. As noted above, withdrawal concludes the Agency's review of your application; however, you may resubmit your application after the deficiencies have been addressed. Should you choose to resubmit your application, it would be subject to a new deadline for making a determination on your application and a new registration service fee.

**3. Not respond.** If the Agency does not hear from you by **April 15, 2013** the Agency in meeting its obligations under section 33/PRIA may issue a determination to not grant your application. While a determination to not grant an application would allow EPA to have met its obligation under section 33 of FIFRA to issue a determination by a specified date, this determination is neither a denial of the application pursuant to section 3(c)(6) of FIFRA or a withdrawal of the application. Thus, the Agency will continue to diligently work on any such application as long as EPA receives a response to a deficiency notice within the 75 days described above.

Please respond to this letter by **April 15, 2013** by contacting Drusilla Copeland by telephone, (703) 308-6224, or by e-mail at [copeland.drusilla@epa.gov](mailto:copeland.drusilla@epa.gov) or Velma Noble by telephone at (703) 308-6233 or by e-mail at [Noble.velma@epa.gov](mailto:Noble.velma@epa.gov) with a response and for any questions concerning this letter. When submitting information or data in response to this letter, a copy of this letter should accompany the submission to facilitate processing.

Sincerely,



Velma Noble

Product Manager 31

Regulatory Management Branch I

Antimicrobials Division (7510P)

Enclosure: Acute Toxicity Review

**Copeland, Drusilla**

**From:** Jennifer Wagar [Jennifer.Wagar@toxcel.com]  
**Sent:** Tuesday, April 09, 2013 3:37 PM  
**To:** Copeland, Drusilla  
**Cc:** Noble, Velma; Edwards, Dennis; Jane Eickhoff  
**Subject:** RE: 68387-RN  
**Attachments:** Acute tox review 68387-RN 2013.pdf; 75 dat ltr. 68387-RN 2013.pdf; EPA-HQ-OPP-2011-0952-0003.pdf

**Importance:** High

Dear Ms. Copeland,

On behalf of Cytec Industries Inc., we are responding to your April 8, 2013, 75-Day Letter (copy is attached) regarding EPA File Symbol 68387-RN.

In your letter, you said that we could not cite the acute toxicity studies because the registration jacket is lost and 1) you could not verify that the BWA formulation tested (Bellacide 350) and Cytec's formulation (CYPHOS 3453W) are substantially similar, 2) the older cited studies may not meet current requirements, but you cannot obtain them to re-review them, and 3) there is no evidence of corrosivity in the study database, therefore, we cannot label our product as corrosive and waive the dermal sensitization study. Here are our responses to these points.

Formulations Are Identical

Antimicrobials Branch Recently Used the Cited Studies in Registration Review of TTPC

With regard to the acceptability of the older acute studies, we would like to point out that the Antimicrobials Branch apparently considered these studies acceptable for use in the recent registration review of TTPC. Please see D394380, "TTPC: Human Health Risk Assessment Scoping Document in Support of Registration Review," October 31, 2011. A copy of the review is attached. In Table 2. Acute Toxicity Data for TTPC, the MRIDs we cited are listed as acceptable for supporting acute toxicity data requirements, including MRID# 133040/133041 (acute oral), 133042/133043 (acute dermal), 133044/133045 (acute eye irritation), and 0133046 (acute dermal irritation). If these studies are acceptable for reregistration review of BWA registrations, then they should be acceptable for review of Cytec's proposed registration of an identical product.

TTPC has been found to be corrosive

In Table 2. Acute Toxicity Data for TTPC in the 2011 risk assessment scoping document referenced above, the acute dermal irritation study (MRID 133046) was assigned Toxicity Category I and listed as corrosive, extreme irritation, Primary Irritation Index (PII)=7.7 (Bellacide 350, 50% ai EP/TGAI). Thus, our waiver request to label for corrosivity instead of conduct a new dermal sensitization study should be granted.

In looking over the TTPC Human Health Risk Assessment Scoping Document, I see that none of the reviewers listed were assigned to review our petition to register CYPHOS 3453W. It is possible that one of those reviewers has the Registration Jacket for TTPC. A good starting point would be Jonathan Chen, the toxicologist from the Risk Assessment and Science Support Branch (RASSB) that signed off on the scoping document.

\*Manufacturing process information may be entitled to confidential treatment\*

Please contact Jane Eickhoff or myself if you need further information, or would like to discuss in more detail our response to the 75-day letter.

Kind regards,  
Jennifer Wagar

Jennifer Wagar  
Senior Associate Scientist  
**toXcel LLC**  
7140 Heritage Village Plaza  
Gainesville, VA 20155  
Phone - 703-754-0248 x116  
Fax - 703-310-6950  
[jennifer.wagar@toxcel.com](mailto:jennifer.wagar@toxcel.com)  
[www.toxcel.com](http://www.toxcel.com)

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**From:** Copeland, Drusilla [<mailto:Copeland.Drusilla@epa.gov>]

**Sent:** Monday, April 08, 2013 12:00 PM

**To:** Jennifer Wagar

**Cc:** Noble, Velma; Copeland, Drusilla

**Subject:** 68387-RN

Attached is a 75 day letter and Acute Toxicity review. Please read and response back on or before April 15, 2013. Thanks

*Drusilla Copeland*  
*Environmental Protection Specialist*  
*Voice: 703 308-6224*  
*Fax: 703 308-8481*  
[copeland.drusilla@epa.gov](mailto:copeland.drusilla@epa.gov)

# DATA PACKAGE BEAN SHEET

Date: 16-Apr-2013

Page 1 of 1

Decision #: 471752

DP #: (411089)

PRIA

Parent DP #:

Submission #: 933749

E-Sub #:

## \*\*\* Registration Information \*\*\*

Registration: **68387-RN - CYPHOS 3453W PHOSPHONIUM SALT**

Company: **68387 - CYTEC INDUSTRIES INC**

Risk Manager: **RM 31 - Velma Noble - (703) 308-6233 Room# PY1 S-8855**

Risk Manager Reviewer: **Drusilla Copeland DCOPELAN**

Sent Date: \_\_\_\_\_

PRIA Due Date: **30-Apr-2013**

Edited Due Date: \_\_\_\_\_

Type of Registration: **Product Registration - Section 3**

Action Desc: **(A532) UNREGISTERED SOURCE OF ACTIVE INGREDIENT;NEW PRODUCT;CITE-ALL DA**

Ingredients: **128824, Tri-n-butyl tetradecyl phosphonium chloride(50%)**

## \*\*\* Data Package Information \*\*\*

Expedite: ☐ Yes ☒ No

Date Sent: **16-Apr-2013**

Due Back: \_\_\_\_\_

DP Ingredient: **128824, Tri-n-butyl tetradecyl phosphonium chloride**

DP Title: \_\_\_\_\_

CSF Included: ☐ Yes ☒ No

Label Included: ☐ Yes ☒ No

Parent DP #: \_\_\_\_\_

### Assigned To

### Date In

### Date Out

Organization: **AD / PSB**

Last Possible Science Due Date: **31-Mar-2013**

Team Name: **CTT**

Science Due Date: \_\_\_\_\_

Reviewer Name: **Blackwell, Ian**

Sub Data Package Due Date: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

## \*\*\* Studies Sent for Review \*\*\*

No Studies

## \*\*\* Additional Data Package for this Decision \*\*\*

Can be printed on its own page

## \*\*\* Data Package Instructions \*\*\*

Please review the rebuttal from the company See email dated 4/9/2013.

*Karen,  
This follows  
and replaces "D407281a".*

*Please start  
more and to  
return  
me*

*D407281*

# DATA PACKAGE BEAN SHEET

Date: 05-Dec-2012

Page 1 of 2

Decision #: 471752

DP #: (407282)

PRIA

Parent DP #:

Submission #: 926605

E-Sub #:

## \*\*\* Registration Information \*\*\*

Registration: **68387-RN - CYPHOS 3453W PHOSPHONIUM SALT**

Company: **68387 - CYTEC INDUSTRIES INC**

Risk Manager: **RM 31 - Velma Noble - (703) 308-6233 Room# PY1 S-8855**

Risk Manager Reviewer: **Drusilla Copeland DCOPELAN**

Sent Date: \_\_\_\_\_

PRIA Due Date: **30-Apr-2013**

Edited Due Date: \_\_\_\_\_

Type of Registration: **Product Registration - Section 3**

Action Desc: **(A532) UNREGISTERED SOURCE OF ACTIVE INGREDIENT;NEW PRODUCT;CITE-ALL DA**

Ingredients: **128824, Tri-n-butyl tetradecyl phosphonium chloride(50%)**

## \*\*\* Data Package Information \*\*\*

Expedite: ☐ Yes ☒ No

Date Sent: **04-Dec-2012**

Due Back: \_\_\_\_\_

DP Ingredient: **128824, Tri-n-butyl tetradecyl phosphonium chloride**

DP Title: **Product Chemistry Data Package**

CSF Included: ☒ Yes ☐ No

Label Included: ☐ Yes ☒ No

Parent DP #: \_\_\_\_\_

### Assigned To

### Date In

### Date Out

Organization: **AD / PSB**

Last Possible Science Due Date: **31-Mar-2013**

Team Name: **CTT**

**04-Dec-2012**

Science Due Date: \_\_\_\_\_

Reviewer Name: **Jiang, Chris**

**04-Dec-2012**

Sub Data Package Due Date: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

## \*\*\* Studies Sent for Review \*\*\*

Printed on Page 2

## \*\*\* Additional Data Package for this Decision \*\*\*

Can be printed on its own page

## \*\*\* Data Package Instructions \*\*\*

TECHNICAL SCREEN REVIEW DUE ON OR BEFORE JANUARY 2, 2013

Please review cover letter, MRIDs 489906-01, CSFs, Data Matrix, new label. This application has been submitted for "new product registration for CYPHOS 3453W Phosphonium Salt which contains the active ingredient tributyl tetradecyl phosphonium chloride at 55% identical or substantially similar in composition and use to registered product, with an unregistered source of the active ingredient.



MRID	MRID Status	Citation Reference	ne	86-5 Status
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.1550/Product Identity and composition	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.1600/Description of materials used to produce the product	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.1620/Description of production process	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.1670/Discussion of formation of impurities	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.1700/Preliminary analysis	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.1750/Certified limits	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.1800/Enforcement analytical method	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.6302/Color	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.6303/Physical state	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.6304/Odor	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.6313/Stability to normal and elevated temperatures, metals, and metal ions	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.7000/pH	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.7100/Viscosity	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.7200/Melting point/melting range	Pass (27-Nov-2012)
48990601		Burnside, C. (2012) CYPHOS 3453W Phosphonium Salt: Product Chemistry. Project Number: 34777, 34776, 34775. Unpublished study prepared by ToXcel, LLC. 203p.	830.7220/Boiling point/boiling range	Pass (27-Nov-2012)

**Jiang, Chris**

---

**From:** Chris Burnside [Chris.Burnside@toxcel.com]  
**Sent:** Friday, March 29, 2013 1:41 PM  
**To:** Jiang, Chris  
**Cc:** Jennifer Wagar; Jane Eickhoff; Vernon, Patricia  
**Subject:** Questions re production and formulation process

Hi Chris,

Thank you again for your call today. Per your request, I am writing to provide documentation confirming that the Production Process, as submitted with the Product Chemistry Volume, for CYPHOS 3453W is the only process that applies to the product. No formulation takes place after the production (i.e., nothing is added to or taken away from the final product described in the production process).

Please feel free to call me if you have any further questions.

Best Regards,  
Chris

**Christopher J. Burnside**

Associate Scientist

**toXcel** Toxicology and Regulatory Affairs

7140 Heritage Village Plaza

Gainesville, VA 20155

ph: +1 703 754 0248 x151

fax: +1 703 310 6950

[chris.burnside@toxcel.com](mailto:chris.burnside@toxcel.com)

[www.toxcel.com](http://www.toxcel.com)

## SAFETY DATA SHEET

### 1. IDENTIFICATION

**Product Name:** CYPHOS® 3453W Phosphonium Salt  
**Synonyms:** None  
**Chemical Family:** Tetraalkylphosphonium halide  
**Molecular Formula:** C<sub>26</sub>H<sub>56</sub>P.Cl  
**Molecular Weight:** 434.5  
**Intended/Recommended Use:** Process Chemical

CYTEC INDUSTRIES INC., FIVE GARRET MOUNTAIN PLAZA, WOODLAND PARK, NEW JERSEY 07424, USA  
For Product and all Non-Emergency Information call 1-800/652-6013. Outside the USA and Canada call 1-973/357-3193.

**EMERGENCY PHONE (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:**

**Asia Pacific:**

Australia - +61-3-9663-2130 or 1800-033-111  
China (PRC) - +86 10 5100 3039 (Carechem24 China)  
New Guinea - +61-3-9663-2130  
New Zealand - +61-3-9663-2130 or 0800-734-607  
All Others - +65 3158 1074 (Carechem24 Singapore)

**Canada:** +1-905-356-8310 (Cytec Welland, Canada plant)

**Europe/Africa/Middle East (Carechem24 UK):**

Europe, Middle East, Africa, Israel - +44 (0) 1235 239 670  
Middle East, Africa (Arabic speaking countries) - +44 (0) 1235 239 671

**Latin America:**

Brazil - 0800 0111 767 (SOS Cotec)  
Chile - +56-2-247-3600 (CITUC QUIMICO)  
All Others - +52-376-73 74122 (Cytec Atequiza, Mexico plant)

**USA:** +1-703-527-3887 or 1-800-424-9300 (CHEMTREC #CCN6083)

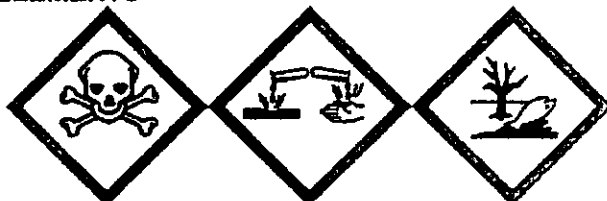
® indicates trademark registered in the U.S. Outside the U.S., mark may be registered, pending or a trademark. Mark is or may be used under license.

### 2. HAZARDS IDENTIFICATION

**GHS Classification**

Acute Toxicity (Oral) Hazard Category 4  
Acute Toxicity (Inhalation) Hazard Category 1  
Skin Corrosion / Irritation Hazard Category 1B  
Serious Eye Damage / Eye Irritation Hazard Category 1  
Aquatic Environment Acute Hazard Category 1  
Aquatic Environment Chronic Hazard Category 1

**LABEL ELEMENTS**



**Signal Word**

Danger

**Hazard Statements**

Harmful if swallowed

Fatal if inhaled

Causes severe skin burns and eye damage

Very toxic to aquatic life with long lasting effects

**Precautionary Statements**

Wash face, hands and any exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Do not breathe dust/fume/gas/mist/vapours/spray.

Use only outdoors or in a well-ventilated area.

Wear respiratory protection.

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid release to the environment.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Immediately call a POISON CENTER or doctor/physician.

Specific treatment (see supplemental first aid instructions on this label).

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash contaminated clothing before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Collect spillage.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local and national regulations.

**Hazards Not Otherwise Classified (HNOC), Other Hazards**

Not Applicable

**3. COMPOSITION/INFORMATION ON INGREDIENTS****HAZARDOUS INGREDIENTS**

Component / CAS No.	%	GHS Classification	Carcinogen
Tributyltetradecyl phosphonium chloride 81741-28-8	48.0 - 52.0	Acute Tox. 1 (H330) Acute Tox. 4 (H302) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	

The specific chemical identity and/or exact percentage of composition for one or more ingredients has been withheld as a trade secret.

Additional GHS classification or other information may be included in this section but has not been adopted by OSHA. See Section 16 for full text of H phrases.

**4. FIRST AID MEASURES****DESCRIPTION OF FIRST AID MEASURES**

**Eye Contact:**

Rinse immediately with plenty of water for at least 15 minutes. Obtain medical attention immediately.

**Skin Contact:**

Remove contaminated clothing and shoes without delay. Wear impermeable gloves. Wash immediately with plenty of water. Pay particular attention to skin crevices, nail folds, etc. Do not reuse contaminated clothing without laundering. Do not reuse contaminated leatherware. Obtain medical attention.

**Ingestion:**

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

**Inhalation:**

Remove to fresh air. If breathing is difficult, give oxygen. Apply artificial respiration if patient is not breathing. Obtain medical attention immediately.

**MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED**

None known

**INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDS**

Not applicable

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**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media:**

Use water spray, carbon dioxide or dry chemical.

**Protective Equipment:**

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

**Special Hazards:**

Keep containers cool by spraying with water if exposed to fire.

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**6. ACCIDENTAL RELEASE MEASURES****Personal precautions:**

Where exposure level is known, wear approved respirator suitable for level of exposure. Where exposure level is not known, wear approved, positive pressure, self-contained respirator. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

**Methods For Cleaning Up:**

Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.

**References to other sections:**

See Sections 8 and 13 for additional information.

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**7. HANDLING AND STORAGE****HANDLING**

**Precautions:** Avoid release to the environment. Use only outdoors or in a well-ventilated area. Wear respiratory protection. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/clothing and eye/face protection. Do not breathe vapors or spray mist.

**Special Handling Statements:** None

**STORAGE**

None

**Storage Temperature:** Not applicable

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Engineering Measures:**

Utilize a closed system process where feasible. Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

**Respiratory Protection:**

Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.

**Eye Protection:**

Prevent eye and skin contact. Provide eye wash fountain and safety shower in close proximity to points of potential exposure. Wear eye/face protection such as chemical splash proof goggles or face shield.

**Skin Protection:**

Prevent contamination of skin or clothing when removing protective equipment. Wear impermeable gloves and suitable protective clothing.

**Hand Protection:**

Wear impermeable gloves. Replace gloves immediately when torn or any change in appearance (dimension, colour, flexibility etc) is noticed. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

**Additional Advice:**

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

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**Exposure Limit(s)**

No values have been established.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Color:</b>	yellow-green
<b>Appearance:</b>	viscous liquid
<b>Odor:</b>	slight
<b>Boiling Point:</b>	100 °C      212 °F
<b>Melting Point:</b>	Not applicable
<b>Vapor Pressure:</b>	Not available
<b>Specific Gravity/Density:</b>	0.95 - 1.00 @ 25 °C
<b>Vapor Density:</b>	Not applicable
<b>Percent Volatile (% by wt.):</b>	48 - 50(water)
<b>pH:</b>	6 - 8
<b>Saturation In Air (% By Vol.):</b>	Not applicable
<b>Evaporation Rate:</b>	Similar to water
<b>Solubility In Water:</b>	Not applicable
<b>Volatile Organic Content:</b>	Not available
<b>Flash Point:</b>	Not applicable
<b>Flammable Limits (% By Vol):</b>	Not applicable
<b>Autoignition Temperature:</b>	Not applicable
<b>Decomposition Temperature:</b>	Not available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Partition coefficient (n-octanol/water):	0.46 (Log Kow)
Odor Threshold:	Not available
Viscosity (Kinematic):	73.7 cST @ 20 °C

## 10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions To Avoid:	None known
Polymerization:	Will not occur
Conditions To Avoid:	None known
Materials To Avoid:	No specific incompatibility
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide (CO) oxides of phosphorus chlorine compounds

## 11. TOXICOLOGICAL INFORMATION

### PRODUCT TOXICITY INFORMATION

**Likely Routes of Exposure:** Eyes, Skin, Respiratory System, Oral.

#### ACUTE TOXICITY DATA

oral	rat	Acute LD50	>1150 mg/kg
dermal	rabbit	Acute LD50	>2000 mg/kg
inhalation	rat	Acute LC50 4 hr	0.05 mg/l/Very Toxic

#### LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	dermal	Corrosive
Acute Irritation	eye	Causes serious damage

#### ALLERGIC SENSITIZATION

Sensitization	dermal	No data
Sensitization	inhalation	No data

#### GENOTOXICITY

##### Assays for Gene Mutations

Ames Salmonella Assay	No data
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#### OTHER INFORMATION

The toxicological properties of this material have not been fully determined.

### HAZARDOUS INGREDIENT TOXICITY DATA

Tributyltetradecylphosphonium chloride has acute oral (rat) LD50 and acute dermal (rat) LD50 values of 611 mg/kg and ~4000 mg/kg, respectively. The 4 hour acute inhalation (rat) LC50 is 0.05 mg/L. This material was extremely irritating (corrosive) in eye and skin irritation studies with rabbits.

## 12. ECOLOGICAL INFORMATION

### TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS

**Overall Environmental Toxicity:** Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

This material is not readily biodegradable.

### FISH TEST RESULTS

**Test:** Acute toxicity, freshwater (OECD 203)

**Duration:** 96 hr.

**Species:** Bluegill Sunfish (*Lepomis macrochirus*)

0.06 mg/l LC50

**Test:** Acute toxicity, freshwater (OECD 203)

**Duration:** 96 hr

**Species:** Rainbow Trout (*Oncorhynchus mykiss*)

0.46 mg/l LC50

### INVERTEBRATE TEST RESULTS

**Test:** Acute Immobilization (OECD 202)

**Duration:** 48 hr

**Species:** Water Flea (*Daphnia magna*)

0.025 mg/l EC50

### DEGRADATION

**Test:** Closed Bottle (OECD 301D)

**Duration:** 28 day **Procedure:** Ready biodegradability

0.0 %

### RESULTS OF PBT AND vPvB ASSESSMENT

Not determined

### HAZARDOUS INGREDIENT TOXICITY DATA

Component / CAS No.	Toxicity to Algae	Toxicity to Fish	Toxicity to Water Flea
Tributyltetradecyl phosphonium chloride 81741-28-8	Not available	Not available	Not available



### 13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this MSDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this MSDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 3 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

### 14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

#### US DOT

Dangerous Goods? X

Proper Shipping Name: TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.

Hazard Class: 6.1

Subsidiary Class: 8

Packing Group: II

UN/ID Number: UN2927

Transport Label Required: Toxic  
Corrosive  
Marine Pollutant

Marine Pollutant

Technical Name (N.O.S.): Tributyltetradecyl phosphonium chloride

Comments: Marine Pollutants - DOT requirements specific to Marine Pollutants do not apply to non-bulk packagings transported by motor vehicles, rail cars or aircraft.

#### TRANSPORT CANADA

Dangerous Goods? X

Proper Shipping Name: TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.

Hazard Class: 6.1

Subsidiary Class: 8

Packing Group: II

UN Number: UN2927

Transport Label Required: Toxic  
Corrosive  
Marine Pollutant

Marine Pollutant

Technical Name (N.O.S.): Tributyltetradecyl phosphonium chloride

#### ICAO / IATA

**Dangerous Goods? X**

Proper Shipping Name: TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.

Hazard Class: 6.1

Subsidiary Class: 8

Packing Group: II

UN Number: UN2927

Transport Label Required: Toxic  
Corrosive

Technical Name (N.O.S.): Tributyltetradecyl phosphonium chloride

**IMO****Dangerous Goods? X**

Proper Shipping Name: TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.

Hazard Class: 6.1

Subsidiary Class: 8

UN Number: UN2927

Packing Group: II

Transport Label Required: Toxic  
Corrosive  
Marine Pollutant

Marine Pollutant

Technical Name (N.O.S.): Tributyltetradecyl phosphonium chloride

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**15. REGULATORY INFORMATION****Inventory Information**

**United States (USA):** One or more components of this product are NOT included on the U.S. Toxic Substances Control Act (TSCA) Inventory. The chemical, physical, and toxicological properties of this material have not been fully investigated. Its handling or use may be hazardous, and it must be used under the supervision of technically qualified individuals. Materials not included on the TSCA Inventory may only be used for research and development (R&D) purposes or in other TSCA exempt activities.

This product contains a substance subject to Significant New Use Rule (SNUR) 40 CFR Section 721.10535.

This product contains a chemical substance that is subject to export notification under Section 12 (b) of the Toxic Substances Control Act, 15 U. S. C. 2601 et. seq. (This requirement applies to exports from the United States only.)

**Canada:** One or more components of this product are NOT included on the Canadian Domestic Substances List (DSL). These components are included on the Canadian Non-Domestic Substances List (NDL).

**European Economic Area (including EU):** When purchased from a Cytec legal entity based in the EEA (EU or Norway), this product is compliant with the registration of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, pre-registered and/or registered.

**Australia:** All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on AICS.

**China:** All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

**Japan:** One or more components of this product are NOT included on the Japanese (ENCS) inventory.

**Korea:** One or more components of this product are NOT included on the Korean (ECL) inventory.

**Philippines:** All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

**OTHER ENVIRONMENTAL INFORMATION**

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

Component / CAS No.	%	TPQ (lbs)	RQ(lbs)	S313	TSCA 12B
Tributyltetradecyl phosphonium chloride 81741-28-8	48.0 - 52.0	None	0	No	Yes

**PRODUCT HAZARD CLASSIFICATION UNDER SECTION 311 OF SARA**

- Acute

**16. OTHER INFORMATION****NFPA Hazard Rating (National Fire Protection Association)**

Health: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

Fire: 0 - Materials that will not burn.

Instability: 0 - Materials that in themselves are normally stable, even under fire exposure conditions.

**Reasons For Issue:** New Format

**Date Prepared:** 10/26/2012

**Date of last significant revision:** 10/26/2012

**Component Hazard Phrases**

Tributyltetradecyl phosphonium chloride

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H330 - Fatal if inhaled.

H400 - Very toxic to aquatic life.

H410 - Very toxic to aquatic life with long lasting effects.

Prepared By: Randy Deskin, Ph.D., DABT, +1-973-357-3100

This information is given without any warranty or representation. We do not assume any legal responsibility for same, nor do we give permission, inducement, or recommendation to practice any patented invention without a license. It is offered solely for your consideration, investigation, and verification. Before using any product, read its label.

**Toxicology & Regulatory Affairs**  
7140 Heritage Village Plaza  
Gainesville, VA 20155-3061

Phone: (703) 754-0248

Fax: (703) 310-6950

**HAND DELIVERED**

8 November 2012

Document Processing Desk (REGFEE)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**RE: New Product Registration Application for "CYPHOS® 3453W Phosphonium Salt"**  
**EPA File Symbol 68387-RN**

Dear Ms. Noble:

On behalf of Cytec Industries Inc. ("Cytec"), we are submitting a new product registration application for "CYPHOS® 3453W Phosphonium Salt", which contains the active ingredient Tributyl tetradecyl phosphonium chloride at 50% (EPA PC Code 128824).

This product is substantially similar in composition and use to a currently registered product, BELLACIDE® 350 (EPA Reg No. 83451-15), as explained during the 14 March 2012 EPA pre-submission meeting with yourself and Dennis Edwards.

The following documentation has been provided:

1. Application for Registration (EPA Form 8570-1)
2. Transmittal Document
3. PRIA Payment Confirmation
4. Data Matrix (EPA Form 8570-35)– Public and Private versions
5. Certificate with Respect to Citation of Data (EPA Form 8570-34)
6. Confidential Statement of Formula (EPA Form 8570-4) – Two (2) copies
7. Material Safety Data Sheet for CYPHOS® 3453W Phosphonium Salt
8. Label – Five (5) paper copies
9. Label – One (1) electronic copy
10. Certification with Respect to Label Integrity

Since this is a new antimicrobial product, identical or substantially similar in composition and use to a registered product, with an unregistered source of the active ingredient, we understand that the application will be processed under PRIA III category A532 in a timeframe of five (5) months, as discussed during our pre-submission meeting.

If you have any questions or require additional information, please contact me by email at [jennifer.wagar@toxcel.com](mailto:jennifer.wagar@toxcel.com) or by phone at 703-754-0248 x116. Thank you.

Sincerely,



Jennifer Wagar  
toXcel LLC, Authorized Representative for Cytec Industries Inc.

**Enclosures**

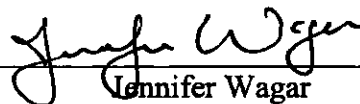
CC: P. Vernon (Cytec Industries Inc.)  
D. Edwards (US EPA)  
J. Eickhoff (toXcel LLC)

## TRANSMITTAL DOCUMENT

**Submitter:**

Cytec Industries Inc.  
Five Garret Mountain Plaza  
Woodland Park, NJ 07424

Company Contact:

  
Jennifer Wagar

Phone: 703-754-0248 x116

Email: [Jennifer.Wagar@toxcel.com](mailto:Jennifer.Wagar@toxcel.com)

**Regulatory Action in Support of Which this Package is Submitted:**

Submission of application for registration of a 50% TTPC End-use Product, using an unregistered source of the active ingredient.

CYPHOS® 3453W Phosphonium Salt

EPA File Symbol 68387-RN

**Submission Date:**

8 November 2012

**List of Submitted Documents:****MRID \_\_\_\_\_ Volume 1 – Administrative Materials:**

Cover Letter  
Transmittal Document  
EPA Form 8570-1  
PRIA payment letter  
CSF  
Data Matrix (public and private)  
Certification with Respect to Data Citation form  
MSDS  
Label

**MRID 48990601** Volume 2 – CYPHOS® 3453W Phosphonium Salt. Product Chemistry. 830 Series.

**MRID 48990602** Volume 3 – CYPHOS® 3453W Phosphonium Salt. Acute Inhalation Study in Rats – Limit Test. Study No. 34778.

**MRID 48990603** Volume 4 – CYPHOS® 3453W Phosphonium Salt. Toxicology. 870.2600.



United States  
Environmental Protection Agency  
Washington, DC 20460

☒ Registration  
☐ Amendment  
☐ Other

OPP Identifier Number

## Application for Pesticide – Section 1

1. Company/Product Number <b>68387-RN</b>	2. EPA Product Manager <b>Velma Noble</b>	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) <b>Cytec Industries Inc. CYPHOS® 3453W Phosphonium Salt</b>	PM# <b>31</b>	
5. Name And Address Of Applicant (Include ZIP Code) <b>Cytec Industries Inc. Five Garret Mountain Plaza Woodland Park, NJ 07424</b>	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No. <u>83451-15</u> Product Name <u>BELLACIDE® 350</u>	
<input type="checkbox"/> Check if this is a new address		

## Section II

- ☐ Amendment – Explain below. ☐ Final Printed labels in response to Agency letter dated \_\_\_\_\_
- ☐ Resubmission in response to Agency letter dated \_\_\_\_\_ ☒ "Me Too" Application.
- ☐ Notification – Explain below. ☐ Other – Explain Below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

**Submission of application for registration of a 50% TTPC End-use Product, using an unregistered source of the active ingredient.**

## Section III

## 1. Material This Product Will Be Packaged In:

Child Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per Container	If "Yes" Unit Packaging wgt. No. per Container

3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container <b>5 gal pail; 55 gal drum; 1000 L tote</b>	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product
---	--	--

6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithographed <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled	<input type="checkbox"/> Other _____
--	--------------------------------------

## Section IV

## 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

Name <b>Patricia Ann Vernon</b>	Title <b>Senior Manager Global Product Regulatory Compliance</b>	Telephone No. (Include Area Code) <b>972-352-3376</b>
------------------------------------	---	--

## Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received

2. Signature 	3. Title <b>Senior Manager Global Product Regulatory Compliance</b>
4. Typed Name <b>Patricia Ann Vernon</b>	5. Date <b>8 November 2012</b>



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
401 M Street, S.W.  
WASHINGTON, D.C. 20460

Form Approved OMB No. 2070-0060

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instruction and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to Director: OPPE Information Management Division (2137) U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

Date 8 November 2012			EPA Reg. No./File Symbol 68387-RN	Page 1 of 6	
Applicant's/Registrant's Name & Address: Cytec Industries Inc. Five Garrett Mountain Plaza; Woodland Park, NJ 07424			Product CYPHOS® 3453W Phosphonium Salt		
Ingredient TRI-n-BUTYL TETRADECYL PHOSPHONIUM CHLORIDE					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
PRODUCT CHEMISTRY:			FE = Formulator's Exemption		
830.1550 (40 CFR §158.155)	Product Identity and Composition		CYTEC INDUSTRIES INC	OWN	Volume 2
830.1600 (40 CFR §158.160)	Description of Materials		CYTEC INDUSTRIES INC	OWN	Volume 2
830.1620 (40 CFR §158.162)	Description of Production Process		CYTEC INDUSTRIES INC	OWN	Volume 2
830.1650 (40 CFR §158.165)	Description of Formulation Process		CYTEC INDUSTRIES INC	OWN	Volume 2
830.1670 (40 CFR §158.167)	Discussion of Formation of Impurities		CYTEC INDUSTRIES INC	OWN	Volume 2
830.1700 (40 CFR §158.170)	Preliminary Analysis		CYTEC INDUSTRIES INC	OWN	Volume 2
830.1750 (40 CFR §158.175)	Certification of Limits		CYTEC INDUSTRIES INC	OWN	Volume 2
830.1800 (40 CFR §158.180)	Analytical Methods for Certified Limits		CYTEC INDUSTRIES INC	OWN	Volume 2
830.6302 (63-2)	Color (EP and TGA)		CYTEC INDUSTRIES INC	OWN	Volume 2
830.6303 (63-3)	Physical State (EP and TGA)		CYTEC INDUSTRIES INC	OWN	Volume 2
830.6304 (63-4)	Odor (EP and TGA)		CYTEC INDUSTRIES INC	OWN	Volume 2
Signature 			Name and Title Patricia Ann Vernon Senior Manager, Global Product Regulatory Compliance		Date 8 November 2012



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## DATA MATRIX

Date 8 November 2012			EPA Reg. No./File Symbol 68387-RN	Page 2 of 6	
Applicant's/Registrant's Name & Address: Cytec Industries Inc. Five Garrett Mountain Plaza; Woodland Park, NJ 07424			Product CYPHOS® 3453W Phosphonium Salt		
Ingredient TRI-n-BUTYL TETRADECYL PHOSPHONIUM CHLORIDE					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
<b>PRODUCT CHEMISTRY</b> (Cont.):			FE = Formulator's Exemption		
830.7200 (63-5)	Melting Point (TGAI)			N/A	
830.7220 (63-6)	Boiling Point (TGAI)		CYTEC INDUSTRIES INC	OWN	Volume 2
830.7300 (63-7)	Density, Bulk Density or Specific Gravity (EP and TGAI)		CYTEC INDUSTRIES INC	OWN	Volume 2
830.7840 (63-8)	Water Solubility: Column Elution Method; Shake Flask Method (TGAI or PAI)		CYTEC INDUSTRIES INC	OWN	Volume 2
830.7950 (63-9)	Vapor Pressure (TGAI or PAI)			N/A	
830.7370 (63-10)	Dissociation Constant (TGAI or PAI)		CYTEC INDUSTRIES INC	OWN	Volume 2
830.7550; 830.7560; 830.7570 (63-11)	Octanol-Water Partition Coefficient (PAI)		CYTEC INDUSTRIES INC	OWN	Volume 2
830.7000 (63-12)	pH (EP and TGAI)		CYTEC INDUSTRIES INC	OWN	Volume 2
830.6313 (63-13)	Stability to temperature, metals, and metal ions (TGAI)		CYTEC INDUSTRIES INC	OWN	Volume 2
Signature 			Name and Title Patricia Ann Vernon Senior Manager, Global Product Regulatory Compliance		Date 8 November 2012

EPA Form 8570-35 (9-97) Electronic and Paper Versions Available. Submit only Paper version.





## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

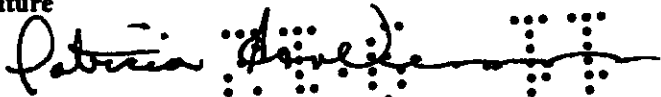
401 M Street, S.W.

WASHINGTON, D.C. 20460

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## DATA MATRIX

Date <b>8 November 2012</b>			EPA Reg. No./File Symbol <b>68387-RN</b>	Page <b>3</b> of <b>6</b>	
Applicant's/Registrant's Name & Address: <b>Cytec Industries Inc.</b> <b>Five Garrett Mountain Plaza; Woodland Park, NJ 07424</b>			Product <b>CYPHOS® 3453W Phosphonium Salt</b>		
Ingredient <b>TRI-n-BUTYL TETRADECYL PHOSPHONIUM CHLORIDE</b>					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
<b>PRODUCT CHEMISTRY</b> <b>(Cont.):</b>			<b>FE = Formulator's Exemption</b>		
830.6314 (63-14)	Oxidizing or Reducing Action (EP)			N/A	
830.6315 (63-15)	Flammability (EP)			N/A	
830.6316 (63-16)	Explosibility (EP)			N/A	
830.6317 (63-17)	Storage Stability (EP)		CYTEC INDUSTRIES INC	OWN	Volume 2
830.7100 (63-18)	Viscosity (EP)		CYTEC INDUSTRIES INC	OWN	Volume 2
830.6319 (63-19)	Miscibility (EP)			N/A	
830.6320 (63-20)	Corrosion Characteristics (EP)		CYTEC INDUSTRIES INC	OWN	Volume 2
830.6321 (63-21)	Dielectric Breakdown Voltage (EP)			N/A	
(64-1)	Submittal of Samples (EP, TGAI, PAI)			Upon Request	
Signature 			Name and Title Patricia Ann Vernon Senior Manager, Global Product Regulatory Compliance		Date 8 November 2012

EPA Form 8570-35 (9-97) Electronic and Paper Versions Available. Submit only Paper version.




## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

401 M Street, S.W.  
WASHINGTON, D.C. 20460

Form Approved OMB No. 2070-0060

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## DATA MATRIX

Date 8 November 2012			EPA Reg. No./File Symbol 68387-RN	Page 4 of 6	
Applicant's/Registrant's Name & Address: Cytac Industries Inc. Five Garrett Mountain Plaza; Woodland Park, NJ 07424			Product CYPHOS® 3453W Phosphonium Salt		
Ingredient TRI-n-BUTYL TETRADECYL PHOSPHONIUM CHLORIDE					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
<b>TOXICITY:</b>			FE = Formulator's Exemption		
870.1100 (81-1)	Acute Oral Toxicity: Rat (EP and TGAI)	133040; 133041	Ciba Geigy	OLD	
870.1200 (81-2)	Acute Dermal Toxicity: Rat (EP and TGAI)	133042; 133043	Ciba Geigy	OLD	
870.1300 (81-3)	Acute Inhalation Toxicity: Rat (EP and TGAI)		CYTEC INDUSTRIES INC	OWN	Volume 3
870.2400 (81-4)	Primary Eye Irritation: Rabbit (EP)	133044; 133045	Ciba Geigy	OLD	
870.2500 (81-5)	Primary Dermal Irritation (EP)	133046	Ciba Geigy	OLD	
870.2600 (81-6)	Dermal Sensitization (EP)		CYTEC INDUSTRIES INC	WAIVE	Volume 4
870.6200 (81-8)	Neurotoxicity Screening Battery (TGAI)			N/A	
870.3100 (82-1)	90-Day Sub-chronic Oral Toxicity - rodent (TGAI)	41367301	Ciba Geigy	OLD	
Signature 			Name and Title Patricia Ann Vernon Senior Manager, Global Product Regulatory Compliance		Date 8 November 2012

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## DATA MATRIX

Date <b>8 November 2012</b>			EPA Reg. No./File Symbol <b>68387-RN</b>	Page <b>5 of 6</b>	
Applicant's/Registrant's Name & Address: <b>Cytec Industries Inc.</b> <b>Five Garrett Mountain Plaza; Woodland Park, NJ 07424</b>			Product <b>CYPHOS® 3453W Phosphonium Salt</b>		
Ingredient <b>TRI-n-BUTYL TETRADECYL PHOSPHONIUM CHLORIDE</b>					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
<b>TOXICITY (Cont.):</b>			<b>FE = Formulator's Exemption</b>		
870.3700 (83-3)	Teratogenicity - two species (TGAI)	133048; 40680704 (amended) 133047; 40680705 (amended)	Ciba Geigy	OLD	
870.5265 (84-2)	Mutagenicity: Gene Mutation (Ames) (TGAI)	133049; 40680706	Ciba Geigy	OLD	
870.5395 (84-2)	Mutagenicity: Structural Chromosome Aberration (Micronucleus Assay) (TGAI)	40680707; 40680708	Ciba Geigy	OLD	
870.5550 (84-4)	Mutagenicity: Other Genotoxicity Effects ( <i>in vivo</i> UDS) (TGAI)	41185801; 41185802; 41185803	Ciba Geigy	OLD	
Signature 			Name and Title Patricia Ann Vernon Senior Manager, Global Product Regulatory Compliance		Date 8 November 2012

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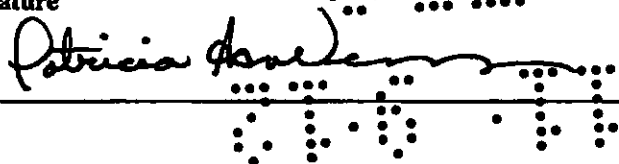


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## DATA MATRIX

Date <b>8 November 2012</b>			EPA Reg. No./File Symbol <b>68387-RN</b>	Page <b>6 of 6</b>	
Applicant's/Registrant's Name & Address: <b>Cytec Industries Inc.</b> <b>Five Garrett Mountain Plaza; Woodland Park, NJ 07424</b>			Product <b>CYPHOS® 3453W Phosphonium Salt</b>		
Ingredient <b>TRI-n-BUTYL TETRADECYL PHOSPHONIUM CHLORIDE</b>					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
<b>ECOTOXICITY:</b>			<b>FE = Formulator's Exemption</b>		
850.2100 (71-1)	Avian acute oral (quail or mallard) (TGAI)	133051	Ciba Geigy	OLD	
850.2200 (71-2)	Avian dietary LC <sub>50</sub> (mallard and quail) (TGAI)	133052; 133053	Ciba Geigy	OLD	
870.1075 (72-1)	Freshwater fish LC <sub>50</sub> (trout and bluegill) (TGAI)	133055; 133056	Ciba Geigy	OLD	
850.1010 (72-2)	Acute freshwater invertebrates (Daphnia) (TGAI)	133057	Ciba Geigy	OLD	
<b>ENVIRONMENTAL FATE:</b>					
835.2120 (161-1)	Hydrolysis (TGAI)	40680702	Ciba Geigy	OLD	
835.2240 (161-2)	Photodegradation in Water (TGAI)	40680703	Ciba Geigy	OLD	
Signature 			Name and Title Patricia Ann Vernon Senior Manager, Global Product Regulatory Compliance		Date 8 November 2012



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

401 M Street, S.W.  
WASHINGTON, D.C. 20460

Form Approved OMB No. 2070-0940

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## DATA MATRIX

Date 8 November 2012			EPA Reg. No./File Symbol 68387-RN	Page 1 of 6	
Applicant's/Registrant's Name & Address: Cytec Industries Inc. Five Garrett Mountain Plaza; Woodland Park, NJ 07424			Product CYPHOS® 3453W Phosphonium Salt		
Ingredient TRI-n-BUTYL TETRADECYL PHOSPHONIUM CHLORIDE					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
PRODUCT CHEMISTRY:			FE = Formulator's Exemption		
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
Signature 			Name and Title Patricia Ann Vernon Senior Manager, Global Product Regulatory Compliance		Date 8 November 2012



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

401 M Street, S.W.

WASHINGTON, D.C. 20460

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## DATA MATRIX

Date 8 November 2012

EPA Reg. No./File Symbol 68387-RN

Page 2 of 6

Applicant's/Registrant's Name &amp; Address:


Cytec Industries Inc.

Five Garrett Mountain Plaza; Woodland Park, NJ 07424

Product

CYPHOS® 3453W Phosphonium Salt

Ingredient TRI-n-BUTYL TETRADECYL PHOSPHONIUM CHLORIDE

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
<b>PRODUCT CHEMISTRY</b> <b>(Cont.):</b>			FE = <i>Formulator's Exemption</i>		
				N/A	
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
				N/A	
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
Signature			Name and Title Patricia Ann Vernon Senior Manager, Global Product Regulatory Compliance	Date 8 November 2012	

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## DATA MATRIX

Date 8 November 2012			EPA Reg. No./File Symbol 68387-RN	Page 3 of 6	
Applicant's/Registrant's Name & Address: Cytex Industries Inc. Five Garrett Mountain Plaza; Woodland Park, NJ 07424			Product CYPHOS® 3453W Phosphonium Salt		
Ingredient TRI-n-BUTYL TETRADECYL PHOSPHONIUM CHLORIDE					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
PRODUCT CHEMISTRY (Cont.):			FE = Formulator's Exemption		
				N/A	
				N/A	
				N/A	
			CYTEC INDUSTRIES INC	OWN	Volume 2
			CYTEC INDUSTRIES INC	OWN	Volume 2
				N/A	
			CYTEC INDUSTRIES INC	OWN	Volume 2
				N/A	
					Upon Request
Signature			Name and Title Patricia Ann Vernon Senior Manager, Global Product Regulatory Compliance		Date 8 November 2012

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## DATA MATRIX

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Applicant's/Registrant's Name & Address: <b>Cytec Industries Inc.</b> <b>Five Garrett Mountain Plaza; Woodland Park, NJ 07424</b>			Product <b>CYPHOS® 3453W Phosphonium Salt</b>		
Ingredient <b>TRI-n-BUTYL TETRADECYL PHOSPHONIUM CHLORIDE</b>					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
<b>TOXICITY:</b>			<b>FE = Formulator's Exemption</b>		
			Ciba Geigy	OLD	
			Ciba Geigy	OLD	
			CYTEC INDUSTRIES INC	OWN	Volume 3
			Ciba Geigy	OLD	
			Ciba Geigy	OLD	
			CYTEC INDUSTRIES INC	WAIVE	Volume 4
				N/A	
			Ciba Geigy	OLD	
Signature 			Name and Title <b>Patricia Ann Vernon</b> <b>Senior Manager, Global Product Regulatory Compliance</b>		Date <b>8 November 2012</b>

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**DATA MATRIX**

Date <b>8 November 2012</b>			EPA Reg. No./File Symbol <b>68387-RN</b>	Page <b>6 of 6</b>	
Applicant's/Registrant's Name & Address: <b>Cytec Industries Inc.</b> <b>Five Garrett Mountain Plaza; Woodland Park, NJ 07424</b>			Product <b>CYPHOS® 3453W Phosphonium Salt</b>		
Ingredient <b>TRI-n-BUTYL TETRADECYL PHOSPHONIUM CHLORIDE</b>					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
<b>ECOTOXICITY:</b>			<b>FE = Formulator's Exemption</b>		
			Ciba Geigy	OLD	
			Ciba Geigy	OLD	
			Ciba Geigy	OLD	
			Ciba Geigy	OLD	
			Ciba Geigy	OLD	
			Ciba Geigy	OLD	
Signature 			Name and Title Patricia Ann Vernon Senior Manager, Global Product Regulatory Compliance		Date 8 November 2012

**Fee for Service**

*P*  
{926605}~

This package includes the following

- ☒ New Registration
- ☐ Amendment

☒ Studies?      ☐ Fee Waiver?  
☐ volpay    % Reduction: \_\_\_\_

for Division

- ☒ AD
- ☐ BPPD
- ☐ RD

Risk Mgr.    **31**

Receipt No.

S-

**926605**

EPA File Symbol/Reg. No.

**68387-RN**

Pin-Punch Date:

**11/9/2012**

☐ This item is NOT subject to FFS action.

Action Code:

Requested:

**AS32**

Granted:

**AS32**

Amount Due: \$ \_\_\_\_

Parent/Child Decisions:

☒ Inert Cleared for Intended Use

☐

Uncleared Inert in Product

Reviewer: TEAM 4 (MH)

Date: 11/13/12

Remarks:



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**401 M Street, S.W.**  
**WASHINGTON, DC 20460**

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**Certification with Respect to Citation of Data**

Applicant's/Registrant's Name, Address, and Telephone Number <b>Cytec Industries Inc.</b> <b>Five Garret Mountain Plaza; Woodland Park, NJ 07424</b>	EPA Registration Number/File Symbol <b>68387-RN</b>
Active Ingredient(s) and/or representative test compound(s) <b>Tributyl tetradecyl phosphonium chloride</b>	Date <b>8 November 2012</b>
General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 156) -- <b>Antimicrobial</b>	Product Name <b>CYPHOS® 3453W Phosphonium Salt</b>

NOTE: If your product is a 100% repackaging of another purchased EPA-registered product labeled for all the same uses on your label, you do not need to submit this form. You must submit the Formulator's Exemption Statement (EPA Form 8570-27).

☐ I am responding to a Data-Call-In Notice, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

**SECTION I: METHOD OF DATA SUPPORT (Check one method only)**

<input type="checkbox"/> I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).	<input checked="" type="checkbox"/> I am using the selective method of support (or cite-all option under the selective method), and have included with this form a completed list of data requirements (the Data Matrix form must be used).
--	---

**SECTION II: GENERAL OFFER TO PAY**

[Required if using the cite-all method or when using the cite-all option under the selective method to satisfy one or more data requirements]

☒ I hereby offer and agree to pay compensation, to other persons, with regard to the approval of this application, to the extent required by FIFRA.

**SECTION III: CERTIFICATION**

I certify that this application for registration, this form for reregistration, or this Data-Call-In response is supported by all data submitted or cited in the application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section I, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses.

I certify that for each exclusive use study cited in support of this registration or reregistration, that I am the original data submitter or that I have obtained the written permission of the original data submitter to cite that study.

I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter, (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (i) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (ii) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study.

I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of my product in conformity with FIFRA.

I certify that the statements I have made on this form and all attachments to it are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

Signature

*Patricia Ann Vernon*

Date

**8 November  
2012**

Typed or Printed Name and Title

**Patricia Ann Vernon  
Senior Manager, Global Product  
Regulatory Compliance**

**Online Payment****Step 3: Confirm Payment**

1 | 2 | 3

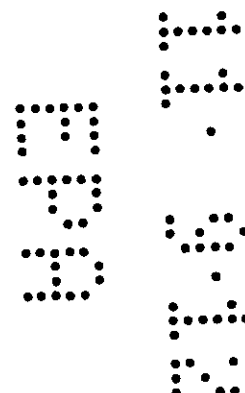
Thank you.  
Your transaction has been successfully completed.

**Pay.gov Tracking Information**

Application Name: PRIA Service Fees  
Pay.gov Tracking ID: 258IEQJ3  
Agency Tracking ID: 74375981668  
Transaction Date and Time: 11/09/2012 10:38 EST

**Payment Summary**

Address Information	Account Information	Payment Information
<b>Account Holder Name:</b> Jennifer Wagar 7140 Heritage <b>Billing Address:</b> Village Plaza <b>Billing Address 2:</b> City: Gainesville <b>State / Province:</b> VA <b>Zip / Postal Code:</b> 20155 Country: USA	<b>Card Type:</b> Discover <b>Card Number:</b> *****5068 <b>Decision Number:</b> <b>Registration Number:</b> 68387-RN Cytec Industries <b>Company Name:</b> Inc. <b>Company Number:</b> 68387 <b>Action Code:</b> A532	<b>Payment Amount:</b> \$4,631.00 <b>Transaction Date and Time:</b> 11/09/2012 and Time: 10:38 EST



## PRIA 2 – 21 Day Content Screen Review Worksheet

(EPA/OPP Use Only)

3/23/09

21 Day Screen Start Date: 11/9/12

Experts In-Processing Signature: Elizabeth Nguyen Date 11/14/12

Fee Paid: Yes ☒

Division management contacted on issues No ☐ Yes ☐ Date \_\_\_\_\_

EPA Reg. Number: <u>68387-RN</u>		EPA Receipt Date: <u>11/9/12</u>				
Items for Review				Yes	No	N/A*
1	<b>Application Form</b> (EPA Form 8570-1)(link to form) signed & complete including package type			<input checked="" type="checkbox"/>		
2	<b>Confidential Statement of Formula</b> all boxes completed, form signed, and dated (EPA Form 8570-4) (Link to form)			<input checked="" type="checkbox"/>		
	a) All inerts (link to <a href="http://www.epa.gov/opprd001/inerts/">http://www.epa.gov/opprd001/inerts/</a> ), including fragrances, approved for the proposed uses (see Footnote A) <u>Technical + Inpur. f</u>			yes	no	
3	<b>Certification with Respect to Citation of Data</b> (EPA Form 8570-34) (Link to form) completed and signed (N/A if 100% repack)			<input checked="" type="checkbox"/>		
	Certificate and data matrix consistent			<input checked="" type="checkbox"/>		
	If applicant is relying on data that are compensable, is the offer to pay statement included. (see Footnote B)			yes	no	
	If applicable, is there a letter of Authorization for exclusive use only.					
4	<b>Formulator's Exemption Statement</b> (EPA Form 8570-27) (Link to form) completed and signed (N/A if source is unregistered or applicant owns the technical)					<input checked="" type="checkbox"/>
5	<b>Data Matrix</b> (EPA Form 8570-35) (Link to form) both internal and external copies (PR 98-5) (Link to PR 98-5) completed and signed (N/A if 100% repack)			<input checked="" type="checkbox"/>		
	a) Selective Method (Fee category experts use)			<input checked="" type="checkbox"/>		
	b) Cite-All (Fee category experts use)					
	c) Applicant owns all data (Fee category experts use)					
6	<b>5 Copies of Label</b> (link to <a href="http://www.epa.gov/oppfead1/labeling/lrm/">http://www.epa.gov/oppfead1/labeling/lrm/</a> ) (Electronic labels on CD are encouraged and guidance is available)( link to <a href="http://www.epa.gov/pesticides/regulating/registering/submissions/index.htm#labels">http://www.epa.gov/pesticides/regulating/registering/submissions/index.htm#labels</a> )			<input checked="" type="checkbox"/>		

7	Is the data package consistent with PR Notice 86-5 (link to PRN 86-5)	<input checked="" type="checkbox"/>		
8	Notice of Filing (link to <a href="http://www.epa.gov/pesticides/regulating/tolerance_petitions.htm">http://www.epa.gov/pesticides/regulating/tolerance_petitions.htm</a> ) included with petitions (link to <a href="http://www.epa.gov/pesticides/regulating/tolerances.htm">http://www.epa.gov/pesticides/regulating/tolerances.htm</a> )			<input checked="" type="checkbox"/>
9	If applicable for conventional applications, reduced risk rationale (link to <a href="http://www.epa.gov/opprd001/workplan/reducedrisk.html">http://www.epa.gov/opprd001/workplan/reducedrisk.html</a> )			<input checked="" type="checkbox"/>
10	Required Data (link to <a href="http://www.epa.gov/pesticides/regulating/data_requirements.htm">http://www.epa.gov/pesticides/regulating/data_requirements.htm</a> ) and/or data waivers. See Footnote C.			
	a) List study (or studies) not included with application			

Comments:

- \* A.I + % composition added.
- \* CSF: Accepted under Technical, impurities, AB
- \* [REDACTED]
- \* Data package Approved. (11-3)
- \* Ticket approved. (Content screen)

MRID: 489906

\* N/A – Not Applicable

IK S-4813  
703-347-8518

Footnotes

A. During the 21 day initial content review, all CSFs will be reviewed to determine whether all inerts listed, including fragrances, are approved for the proposed uses. If an unapproved inert is identified, the applicant must either 1) resolve the inert issue by, for example, removing the inert, substituting it with an approved inert, submitting documentation that EPA approved the inert for the proposed pesticidal uses, correcting mistakes on the CSF, etc. or 2) provide the data to support OPP approval of the inert or 3) withdraw the application. Removing or substituting an inert ingredient will require a new CSF and may require submission of data. All information, forms, data and documentation resolving the inert issue must have been received by the Agency or the application withdrawn within the 21 day period, otherwise, the Agency will reject the application as described below.

To successfully complete this aspect of the 21 day initial content screen, applicants are **strongly encouraged** to verify that all inert ingredients have been approved for the application's uses **even if a product is currently registered** by consulting the inert Web



site [link to <http://www.epa.gov/opprd001/inerts/lists.html>] and if the inert is not approved, to **obtain the necessary inert approval prior to submitting an application to register a pesticide product containing that inert ingredient**. Some inert ingredients are no longer approved for food uses or certain types of uses. The name and/or CAS number on a CSF must match the name and CAS number on this web site. Simple typographical errors in the name or CAS number have resulted in processing delays.

If an inert is not listed on the inert ingredient web site and the applicant believes that the inert has been approved, the applicant should contact the Inert Ingredient Assessment Branch (IIAB) at [inertsbranch@epa.gov](mailto:inertsbranch@epa.gov) and resolve the issue. Copies of the correspondence with IIAB resolving the issue should accompany the application. All new inerts except PIP inerts are reviewed by IIAB. The IIAB should also be contacted for any questions on what supporting data needs to be submitted for and the Agency's inert review process. Questions on PIP inerts should be directed to the Chief of Microbial Pesticides Branch [Link to [http://www.epa.gov/oppbppd1/biopesticides/contacts\\_bppd.htm](http://www.epa.gov/oppbppd1/biopesticides/contacts_bppd.htm)].

When a brand, trade, or proprietary name of an inert ingredient is listed on a CSF, additional information such as an alternate name of the inert, CAS number or other information [link to <http://www.epa.gov/opprd001/inerts/tips.pdf>] must also be included to enable the Agency to determine if it has been approved. Each component of an inert mixture (including a fragrance) must be identified. In some cases, the supplier of the mixture or fragrance may need to provide this information to the Agency. Prior to the Agency's receipt of an application, applicants must arrange with a proprietary mixture or fragrance supplier to provide the component information to the Agency or promptly upon EPA's request. If the inert ingredients in a proprietary blend (including fragrances) cannot or are not identified or provided within the 21-day content review period, the Agency will reject the application.

During the 21 day content review, applicants should submit information to the individual identified by the Agency when the applicant is informed of an unapproved inert.

### **Unapproved Inerts Identified on CSFs**

#### **All applications except conventional new products and PIPs**

Once an unapproved inert is identified on a CSF, the Agency will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or
2. Submit the information and data needed for the Agency to approve the unapproved inert. If this option is selected and implemented, the Agency may request an extension in the PRIA decision review timeframe to accommodate the inert review/approval process;

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of these options is selected and implemented by the applicant within the 21 day content review period, the Agency will reject the application and retain 25% of the full fee of the category identified.

#### Conventional New Product Applications

When the Registration Division identifies an unapproved inert on a CSF with an application for a new product that the applicant has not identified as requiring an inert approval (R311, R312 or R313), it will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or
2. Submit the information and data needed for the Agency to approve the unapproved inert, including any required petition to establish or amend a tolerance or exemption from a tolerance. (This option may change the PRIA category for the application, which could require a longer decision review time and a larger fee. If additional fees are due, they must be received by the Agency within the 21 day content review period.)
3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21-day content-review period, the Agency will reject the application and retain 25% of the appropriate fee for the new product-inert approval category.

#### PIP Applications

When the Biopesticide and Pollution Prevention Division identifies an unapproved inert on a PIP CSF and a request to approve the inert does not accompany the application, it will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the spelling or name of the inert to that in 40 CFR 174, or providing documentation that the inert has been approved; or
2. Submit the information and data needed for the Agency to approve the unapproved inert. If an inert ingredient tolerance exemption petition is required, the petition must be received by the Agency and the B903 fee paid within the 21 day period. If this option is selected and implemented, the Agency will discuss harmonizing the timeframe for both actions.

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21 day content review period, the Agency will reject the application and retain 25% of the fee.

B. A policy on documentation of offers to pay is still being developed, however, for a me-too or fast track (similar/identical) new product, R300 or A530, an application without the necessary authorizations of offers to pay will be placed into either R301 or A531. The Agency recommends that authorizations of offers to pay be submitted with other PRIA applications to avoid delays in the Agency's decision.

C. Biopesticide applicants are advised to contact the Agency and discuss study waivers prior to submitting their application to the Agency. Documentation of such discussions should be submitted with the study waiver.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

November 14, 2012

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

OPP Decision Number: D-471752  
EPA File Symbol or Registration Number: 68387-RN  
Product Name: CYPHOS 3453W PHOSPHONIUM SALT  
EPA Receipt Date: 09-Nov-2012  
EPA Company Number: 68387  
Company Name: CYTEC INDUSTRIES INC

KIM GUZOWSKI  
CYTEC INDUSTRIES INC  
FIVE GARRET MOUNTAIN PLAZA  
WOODLAND PARK, NJ 07424

SUBJECT: Receipt of Registration Application Subject to Registration Service Fee

Dear Registrant:

The Office of Pesticide Programs has received your application and certification of payment. If you submitted data with this application, the results of the PRN-2011-3 screen will be communicated separately. During the administrative screen, the Office of Pesticide Programs has determined that this Action is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The Action has been identified as Action Code: A532

UNREGISTERED SOURCE OF ACTIVE INGREDIENT;NEW PRODUCT;CITE-ALL DATA  
CITATION EXCEPT FOR PRODUCT CHEMISTRY;IDENTICAL OR SUBSTANTIALLY  
SIMILAR IN COMPOSITION AND USE TO A REGISTERED PRODUCT;PRODUCT  
CHEMISTRY DATA SUBMITTED;REGISTERED ACTIVE INGREDIENT;

No additional payment is due at this time.

If you have any questions, please contact the Pesticide Registration Service Fee  
Ombudsman at (703) 308-6427.

Sincerely,

A handwritten signature in black ink, appearing to be "m. z. m." or similar.

Front End Processing Staff  
Information Technology & Resources Management Division

